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Koford, C. B.

1971 - 72

Journal

Mexico

Guatemala

South America

Felid Survey

Journal

7 October 1971

Berkeley - San Diego

We (Sue K. + I) took ^{evening Greyhound} bus ~~from~~ Oakland to San Diego, arriving about 8 a.m. Spent most of day at Zoo, where warmly greeted by director (Schroeder), and guided around most of day, having lunch with President. K.C. Lint especially helpful to us. George Pannelle also present. Then Apparently 2 jaguars but no ocelots in zoo. We went to Pacific Beach and stayed with my cousin, Tom Buckingham.

8 October 1971. Took bus to San Ysidro. Walked

over to Tijuana, & took ^{noon} ~~morning~~ Tres Estrellas bus for Guaymas. Arrived ^{very} early morning + walked out to Playa de Cortes. Calm waters, various islands, desert climate + vegetation. Then back to Guaymas town, and took bus to Navojón. From there, local ^(9 Oct. eve) bus to Alamos, where we stayed at Hotel Enrique (\$12 per person each) on plaza. At foot of mountains here, but mostly mesquite mixtures. Said to be many javali nearby. A Rancho Trailer Park advertised hunting trips to mountains. Local men said jaguars in hills, but few, perhaps 2-3 a year taken. Met Dr. Pennington, anthropologist, from Southern Illinois U.; he also thought some jaguars in mts., tho had not seen any (his Mexican companion also thought grizzly bears to exist). Back to Navojón,

(Sunday Oct. 10)
then on to Culiacán by bus. Stayed hotel (70 pesos), where lodged at store called Pecosita.

11 October 1971

On to Mazatlán. In afternoon, took back on truck bus to San Ignacio,

Journal

12 October 1971

San Lorenzo, Sinaloa, Mexico

We left ^{La} Beccaria (house) about 9 a.m. & went SE through former jaguar hunter (see Fernando notes). Forested, but many of the trees fallen. About 1 p.m. started walking N. on ^{best} dirt road toward Ajaya. Road crossed & recrossed a slow, small, sandy bottomed river of clear, warm water. Some fish (black spot or milk - cackled in it. Occasional large trees - forest trees - legumes, figs, others on trees with thick dead leaves. Some pieces of living cacti, & other cardelino cacti scattered. Many thorny mesquite (?) trees & bushes, occasional dwellings. Trip about 12 miles. We walked about 3 before picked up by jeep going to clinic at Ajaya (project Beccaria; Helen, Duck, & 3 Tennison Lane, Pete etc). Met 3 young people (2 of whom working on the project). Runged over, possibly on M.D., was 25 miles away by trail, at his house in pine zone (David Werner, said to be banding & painting birds, too). Along road we saw lizards, mossie jay, flycatcher, red-headed Cuckoo (?) woodpecker, old Oxyechus etc. Road passed next to a large Bald Cypress (?), only one seen. Ajaya on a flat area, dirt streets, poor looking, whole house I ignored, but locals knew of no hunters there. We stayed in storage shed. Heard Caprimulgus (?) in evening. One big sparrow during day; often hot & muggy, walking.

13 October 1971. Din of donkeys at night, roosters in morning. We walked back on road to San Lorenzo, dandling, bathing in river - web house. But some

Est River - 19 km by road W. of road 15.
St. Ignace - ~~about~~ 72 km (by road)
N. Migration

Journal

13 October 1971

Ajoaya - San Ignacio, Sinaloa, Mexico

en route many nighthawk (30+ in bunches to about 2), which came readily to squawking or game call. Also on ground cactus (Paysa, brown) at edge bunch large trees, woodpeckers, flycatchers, one quail (?) flew over road, 12th quail (bobwhite ?) at edge field; black vulture, other birds. One Scissor, gray, in tree 30' over road in study area. Some figueroa (red-bark) trees, with 6' green fruits. We were told there were camachiles, nuyenas, trout, and river ran Ajoaya. Anis near San Ignacio, & toads (B. variegatus - huge perched) in plaza in evening. / In late afternoon talked w. Ferreira again. He said there were groups of coatis (tejones) in some areas, large numbers characholacas, at times, feeding in trees near Est. Demora (RR sta., 10 km. W. of present N-S highway). / Bays brought in large juv. bobcat, which had been taken ~~measly~~^{nearby} in traps. Barely alive, with rope around neck. Offered to sell it to me; when I declined, offered to give it. Slept on hill to W.

14 October 1971

San Ignacio Nogallan, Sinaloa

Den of roosters, dogs, chickens, bulls in town. Accented, no birds. Tech 8 a.m. leave for Nogallan (10 p.m.). Looked around town. C - spit where feeding birds heavy, 2 scissor and several dolphins hanging at rental side, near beach to W., 100' Dolphin on road. Discovered after pellets cut. Much sewage water & litter than over. The Ferry to Est. La Paz takes 17 hrs., leaves 5 p.m., price in town as \$5.20 (US). Ferry cost about 1/2 of a dollar. 30 p. for 2 at dusk.

Shrimp coop—near market.

20th yrs Francisca Orozco Vázquez
Calle Anacleto Correo # 905 pte
Tuxpan

Jose Pérez Medina Driver, farmer,
Rel. in Santa Cruz
Dom. Calle Junco? Escobedo y Bravo
213 Tuxpan

Ramón Ahumada - mechanic

Journal

14 October 1971

Mexico

Rode bus to Lázaro Cárdenas - 1 pers - stayed at Hotel Santa Ana. Casa de huéspedes, my old street west W. from Hotel Santa Ana (80 p.)

15 October 1971

Mexico

Visited Antler Bros. (hunting) shops. Mostly duck hunting. Had 6 wheel A.T.V. rented gold pipe (3 1/2 day w. man + 4 gun). At foot of 5 de Mayo, then from Chusar (look at ridge town). Took 1000 bus toward Durango, to La Ciudad (in pine plateau). Lower slopes regularly begin low, big pines, small tropical variety evergreen, mesquite. First pass above mesa to Carrizal - many at Capilla de Tapa. Lunch stop at Sta. Rita, in pine grove, with large leaved oak mixed. Droopy reddish-brown pine? By Tabasco, 1922 km., a huge canyon to S., 90% pine (mesquite station nearby atop ridge). Pánuco, 1804 km., had station station, a restaurant (114 km from Durango). Board bus, modern. Cliffs of column in pinkish rock. Road crested edge of huge barranca, extending SW. Pánuco, Los Angeles, El Indio (2 p.m.) La Ermita (Barranguero restaurant), El Indio, El Diablo (2355 m.). Went on ridge in pines, sketched distant mesa to N + S (152 km from M.). Could see Los Tuxtepecs to SE of San Agustin. About 2:30, onto some mesa - then La Hermita (roadside). From Pánuco to Durango, 1440, another fine N + S view. La Ciudad, 1453 - similar view. Got off, started walk back. Light rain. Walked back side to the Buenas Aires. Hiked on, after dark, & camped west of El Diablo. Light rain at night. Cold! Men to Hermita, to the road. 1/2 water snow in winter. Traffic stopped. Had some beer, no liquor. But paper, deer, rabbits. Many big trees through at night.

16 October. Walked to El Diablo, 2355 m. Truck from Durango gave

Journal

16 October 1971

To Texpan, Nayarit, Mexico

as apples. Walked on W. - columnar cliffs, water treadles, moss, flowers, woodpeckers, turkey vultures, hummingbirds, little solid overcast - to La Fragueta. Man offered ride - so continued on down with him to La Unión. Then hopped bus to Peritos, the junction to Texpan, arriving about 7:30 p.m. Cuernavaca was bustling shrimp - freezing town. Bus to Texpan (1³⁰ peso), a ~~run down~~ ^{down} moderate town, with a few newish houses. Went to La America ^{Hotel} ^{1/2} block from NE corner of plaza (25 pesos, w. both, for 2).

17 October 1971.

To Santa Cruz, Nayarit

Can go across river to San Vicente by canoe; also down by boat to Mexaltitlan, from S. V. Bus to Mexaltitlan leaves 0800. We took 0900 bus to Peritos, walked N. to Mexaltitlan road (38 km. to M.) - walked W. on road. Soon picked up by truck, w. 3 men from shrimp coop (Jose Pérez Medina, ^{chef} Ramon Ahumada, and Francisco Orozco Vázquez (20+ yr student). Truck took us to Santa Cruz, & on to Playa Colorado. New road since a year ago; turn off to Mexaltitlan (9 km.). Road at first on solid ground thru clumps mesquite, cultivated fields (peppers, beans, mangoes). Saw occasional gpe. quail on road. Several large green egrets. Coccyzus, ^{grackles} ~~coos~~, fish crows, black-necked stilts in ponds, snowy egrets. Then into area mangroves, lagoons, water lilies; jacaranda, American egrets, cormorant groups, green herons, great blue herons, Louisiana (?) herons, 2 or 3 kinds of terns. Fine birding country. Large flycatcher w. yellow belly, brown body, black head, big white eye stripe. Fish traps of reeds and mangrove sticks. Men fish-

Journal

17 October 1971

Nr. Tuxpan, Nayarit, Mexico

ing with "attarayan." Road a raised mound of rock through mangroves - little solid ground. Santa Cruz, San Andres, other settlements on solid ground. Pole & palm - thatch houses. Berzo had brothers & friends here. We visited one family, including man said to be 105 yrs. old (wife maybe only 90 or so). They dry shrimp in sun on sheet metal. Say weather always cool: June-July wettest. Shrimps taken 3 months of year. Much of mangrove area dried up ^{from} in December on; can even drive on bed. / Beach of fine sand, palm shelters with tables - we drank beer, ate "lija" fish, shrimps, shrimp tamales too. Ocean muddy but otherwise clean. One of Tres Marias islands visible (pison on one; parrots there). / We later unloaded a disc player & gas drums, finally returned to Tuxpan after dark. / ^{Coprimulgids} on road bed in night. / On way back saw 2 flocks of pink sparrows, osprey, kingfishers, avocets, black vultures, Inca (?) doves (chestnut wings). / Some men spoke of caimans, up to 14 feet long. Some "igre" tales too. / Returned to America hotel for night. No rain today.

18 October 1971.

Clear morning. Alonso Ramos (Pepsi distributor around Laguna Brown) and boy in his office said had seen no tiger cats in Tuxpan market. We took 0900 bus to Santiago (4 p.), then Topic bus to "Cruce de San Blas" (4 p.). Here there was restaurant, garden, cages with magpie jays, marmosets (from Colombia), papagallons, parrots, and two jaguars. Talked w. Heriberto Barra E., owner and hunting guide. Saw his 10± hounds. Then we

18 October 1971

Journal

Nr. San Blas, Nayarit, Mexico

Hitched 2 riders, & walked, to San Blas, about 37 km. Last 10 km. through broken jungle patches, many palms, but some 100' large-leaved trees, strangler figs, other exotics including flocks small & medium parrots. Last few km. in mangrove area, w. patches cut. Many many egrets, some cormorants - but many less birds, & few water lilies, compared w. Santa Cruz area. Town nothing special - usual prices at local shops, but a few fancy tourist shops too, many signs in English, and a dozen or more U.S. license plates (mostly Calif.) seen, so rather gringo-eyed. But fishermen throwing nets, others working on "cheichorro" on shore, and some minor ruins of old buildings around. Biting insects. Boats took people through mangrove water trails to Tobara spring, for a stiff price. No luxurious hotels seen, however. Minor market. We walked back on road about 7 km. to Sengayta, a small village, & camped nearby. Saw large boats feeding at foliage on large jungle trees. Saw 8 coatis, including young of perhaps 1 lb., in one tree. Clear night. Heard one apparent owl hooting, no caprimulgids (but saw one at dusk).

19 October 1971. Various birds called in morning, including parrots, Oropendolas, wogpie jays, black & yellow cassiques, woodpeckers. We walked 1 hr. on vereda leading from Sengayta to marismas and

Journal

19 October 1971

Nr. San Blas, Nayarit, Mexico

saw many birds along trail, but very muddy, with some cattle, pigs, & bee hives to make it more uncomfortable, so gave up. Started walk \rightarrow crease; a trail toward Progreso, thru jungle, after 1 km. Continued patches of good forest for 5 km, then higher level & more open (cut over, probably). Soon got a ride to Tepic. Stayed at Morale's Pension, ^(20 p. for 2) 2 1/2 blocks from Central Camionero (superior bus station, good restaurants). Looked over town & market. Clean town, swept sidewalks; fairly ^{cool} ~~cool~~ after coast. Clear day.

20 October 1971. Took bus to Las Varas, near

coast, about 2 hrs., as this was locality of one tiger's kill. Patches of subtropical forest, but considerable cultivation near Las Varas. No sign of hunters or skins in the small town, etc. truckload of blue-fronted parrots (from Puerto Vallarta area?). Returned to Tepic (via Compostela; attractive small town). In Tepic at Galerías Xixos near Abasco (Bleza Constituyentes) saw 2 skins of ocelot, about 120 pesos each, on display. Moderate market, a few Huichol Indians, much of their products.

21 October 1971. Took 7 a.m. bus for Guadaluajara, ^{Ahuagatlan} by local bus about 3 hrs. Near ~~Atahua~~, jumble of volcanic rock by road; slopes of old volcano to N., not spectacular; vegetation to top. Much ^{maguey} ~~of~~ agave cultivation along road, & corn. Some pine-oak mixtures before Guadaluajara. Bustling trafficking town, with

Journal

21 October 1971

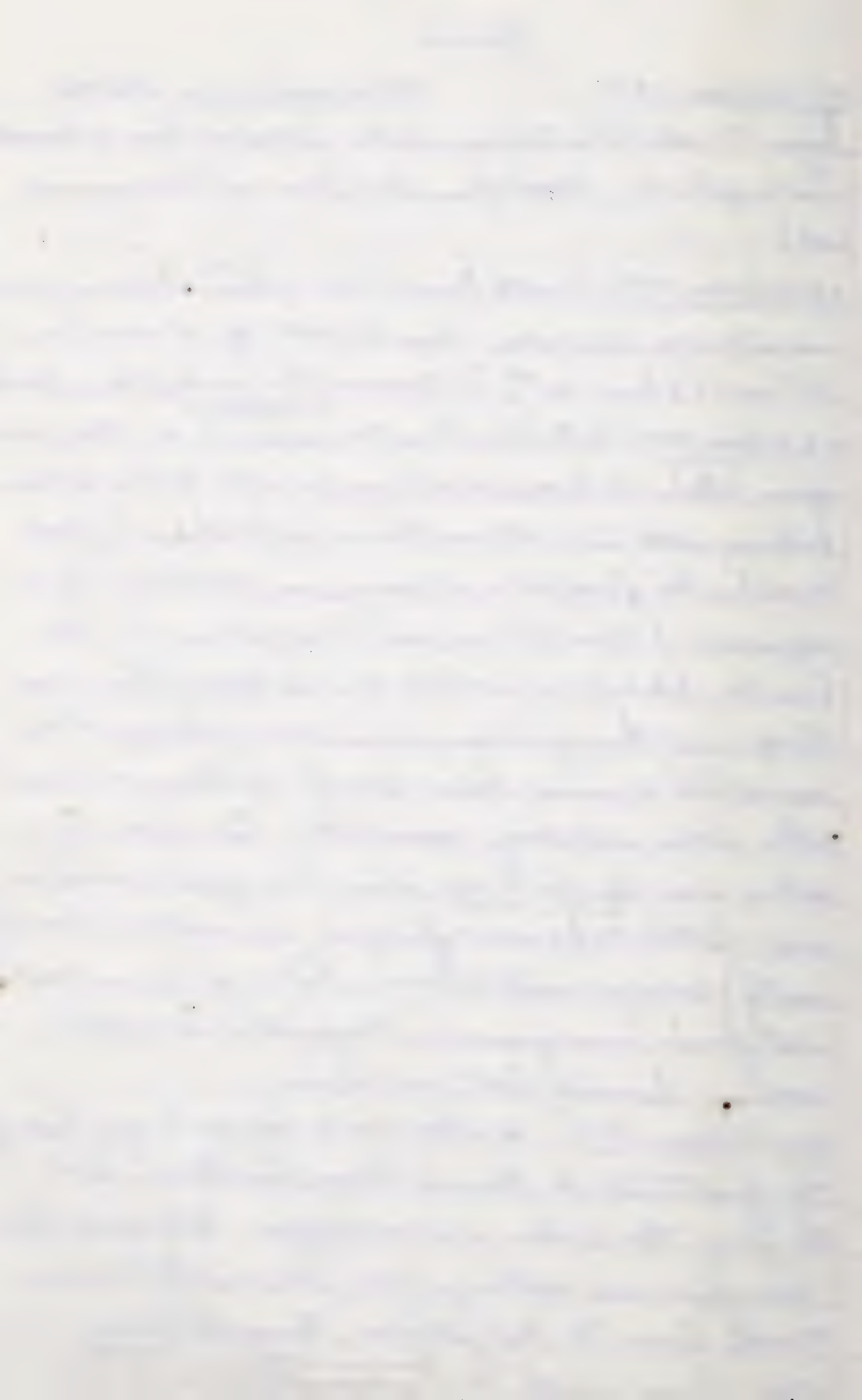
To Guadalajara, Jalisco

Large Mercado Libertad near center. Stayed at Casa de Huéspedes, Los Angeles 66, 1 block from bus terminal (40 pesos, private bath).

22 October 1971. Visited Casa de Cultura, ^{Centro} ~~Museo~~ Artesanías, university area, churches. Departed 1445 by 1st. class bus to Tepic (3 hrs., 23⁵⁰ p.). Overcast there so stayed Remón Morales, ^{No. 5, San Blas}.

23 October 1971. Took local bus to crucero de San Blas, where again talked w. A. Parra about tigers (see notes). He has purchased Brahman cattle, interested in albinoism + color change by food. He said "miles" of finapoches in mangroves. Additional info on jaguars. / Bus to Tuxpan. Crossed river to San Vicente, hitched and walked to end Mexcaltlan road. Along road through mangroves saw glossy ibis, sandhill cranes, hundreds of ducks, + usual other birds including spoonbills. Camped by estero near Santa Cruz, where two yps. duck hunters. Cattle + horses foraged in water (barley salty), among waterlilies. Piles of fence posts cut from mangroves. Mosquitoes all night; warm, humid, but no rain.

24 October 1971. Walked on to Santa Cruz, hoping to find truck N. toward Playa Navidón. But the "ferry" there broken and no traffic. Hat and shadeless for road walking, so returned to Tuxpan. Took bus to Mazatlán. Rm at Doney, then took bus north to Hermosillo (25 October) ~~lagoon~~ ^{lagoon} ~~arriving early morning~~ ^{25 October}



Journal

25 October 1971

Arrived Hermosillo. Clean town with University in desert area. Walked around during afternoon. Then took Pacific bus (2nd class, 31 pesos) toward Tijuana.

26 October 1971. Arrived Tijuana 7 a.m. Walked over border. No check or pickup of tourist cards on Mexican side, a couple of questions but no inspection of our pouches at U.S. gate. Bus to San Diego. Then to Fresno. Then local to Oakland, arriving 10:45 p.m. Home. No specimens collected on this trip.

4 November 1971

Berkeley

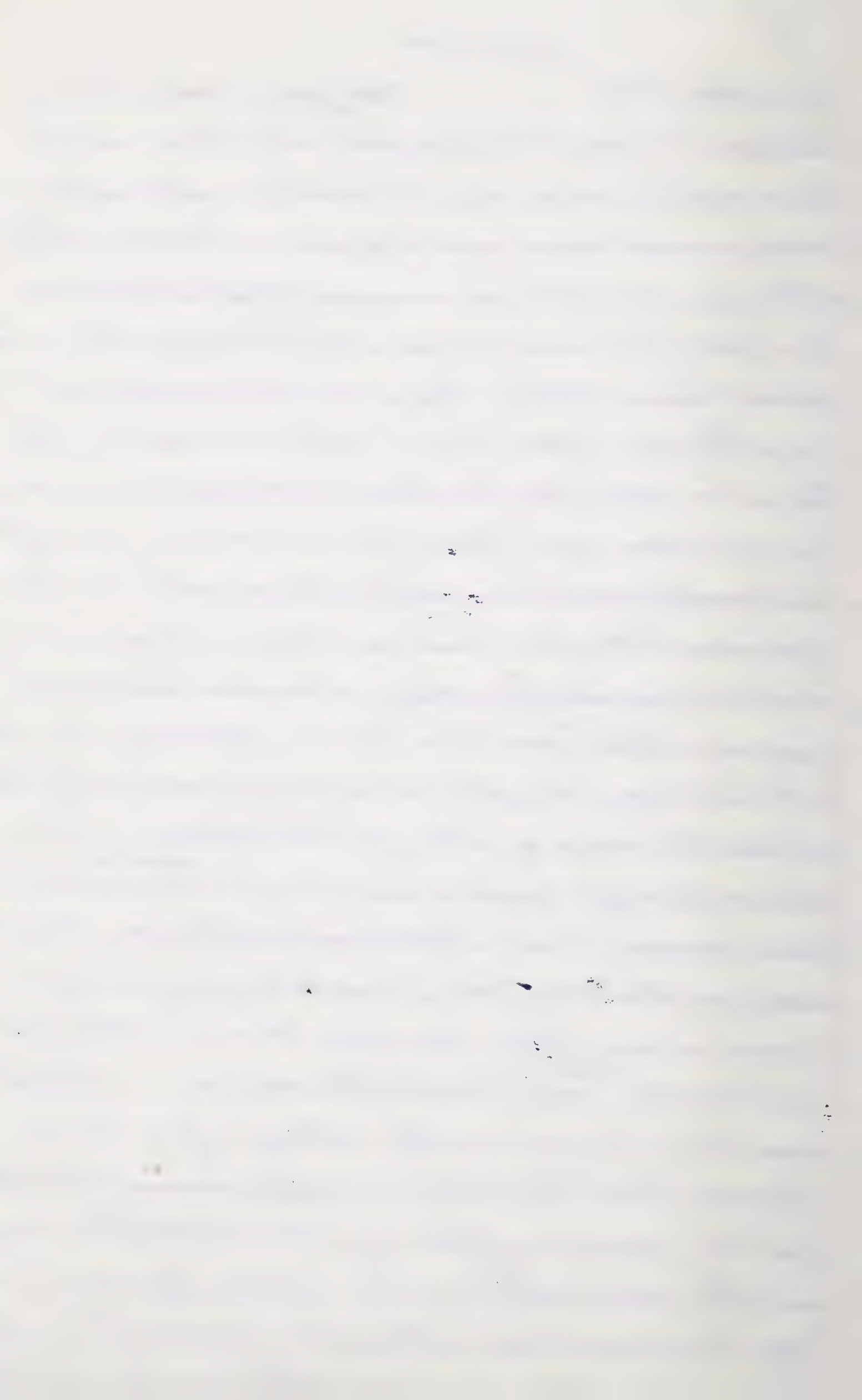
Talked with Dr. H. Sternberg, Geography Dept., about jaguar-ocelot study and conditions in Brazil. He was concentrating on Mato Grosso. Student Nigel Smith studying impact of Trans-Amazon highway; I met Smith briefly.

7 November 1971. Smith visited home & showed us photos animals and skins in Amazon area (Para mostly), where he has done field work during two summers.

12 October 1971

San Ignacio, Sinaloa, Mexico

Called on J.F. Pancho Ferreira, who lived a block north of the parque (house no. 63), 1/2 block E. of Market (and Casa). He was principal source info. on jaguars in Leopardo Wildlife of Mexico, 1959. He did not remember Leopold but knew of the book. J.F.F. now 77 years old, but very active, & very pleasant house. He is in charge of truck transport for Tayotita mine (gold, silver). Roads to mine open in Dec. - then rains, about July, close them. He was part time hunting guide, 5 mos./yr., for 5 years in 1930's. Some of the Lee Bros. of Tucson also brought clients a sports bus. Hunt fee was \$1000. for a hunt sometimes 10 days or more, including special dogs, riding mules, don't hunters and jaguar callers. (Used a cow horn to call them, or a drum with hole thru which pulled palm-fiber or waxed cord). Spot included Mr. Howard of Boston, who took pictures including movies, they got 3 jaguars on one trip (J.F.F. ^{showed me} some photo). He would be over 80 now. Another spot was Hollander, who "got" large one after 10 day hunt. Howard had some note about Ferreira in some pub. - American name? / Another spot was Carpenter, ^(later?) now? president of Dupont co. / Total bill was \$7 in 5 year period, hunting as far S as Pinaro. / Much talk about an "onza", smaller, with longer feet than puma; one taken by J.F.F. and Dale Lee near La Billa, prominent ^{mt.} formation S. of San Ignacio. / One "tigre" hunt near Los Fresnos, prominent peaks M. of rock on skyline to E., in 1936, w. Mr. Howard & big party. The



Felis onca

12 October 1971

San Ignacio, Sinaloa, Mexico

Tigre had been taking calves from corral. Finally tired by dogs & killed. Largest taken was 40 billion pounds, est. 1100 lbs. / Cornered one - hit dogs in head. Often a dog killed. Cattle - tiger's regular prey of ranch. / One traced by dogs to hole in rock, on small ledge. Killed with pistol. / J.F.F. returns to San Ignacio about 2 yrs ago (from Michoacán?). Had ranch near Coyotlán (near highway, W. of San Ignacio) until 1963. One tiger there for at least 17 years. Finally killed by man camping, who ambushed & shot cat w/ pistol. This cat ranged in Sierra de Cocoyula, to S. / Home range about 20 miles, said J.F.F. Tigre stayed in same area for long time. Probably one male, 2-3 ♀♀. Hunting was usually Nov. - March (when got too hot for dogs). Usual method to call at night, to locate. Then hunt in that area (of call answer) next day with dogs. Sometimes made large and, trying to pick up fresh tracks. One taken ^{near Coyotlán} 22 December for Hollander, using this method. / Call - hunter can distinguish ^{sex} ~~sex~~ of answering call, apparently. Both sexes answer, appear around. Young apparently born in any month, w/o season (little evidence). Putting out bait, dead on chain, brought from success. But often return to own kill, not often it starts to rot. J.F.F. had no information on traps or poisoned carcasses, although then mentioned these methods, not from first hand experience. Food mainly deer - but other things too, even leg ends. J.F.F. thought all game much

Felis concolor

12 October 1971. San Ignacio, Sinaloa, Mexico
demonstrated around here, but not jaguars. [The Lee Bros
one arranged a trip to Veneguelen, bringing their dogs, the
trip paid for by Veneguelen. ~~But~~ They killed 31 jaguars
in 29 days, said JFF. One tiger put test insect and charged.
Dale. Later, foreign hunter interested in V., said JFF. Only
surviving brother is Dale, now at F.T. Huachuca, Ariz. [Actually 2 others also]
had photos sent by Lee of this trip. One shot with about
6 jaguars or pellets hanging up. Topped up on border of park
and is larger than diamond over. JFF had many other jag-
uar & hunter photos; gave me one showing him & 3 Lee with
jaguar. He ~~had~~ ^{had} no pellets or bones, any, however. JFF
said he had heard of tiger killing cattle in Campanillas
area. At Ajaja village, others said somewhere said it
was a ♀ with two "cachorros". Campanillas about 3/4 way
San Ig. to Ajaja, then off to N. - I didn't go there. One
person said a woman cazadora in San Juan (to S.
of San Ignacio) sometimes had a ^{wild} cat (~~cat~~ ^{kind?}) in cage.

13 October 1971. Again visited Ferreira. He said
15-19 jaguars per yr. killed in 5 yrs., all in Sinaloa,
some clear to coast. One long story about calling
jaguar near Demar; ^{Est. [Dimas]} finally getting in light at
15' but gun not working. Shot with pistol, but
ammunition poor so no kill. Later taken nearby.
Vansaire called this animal at times, "playing" with
him. Apparently rather fearless of men, noise,
lights. JFF unable to estimate total area hunted

Felis onca

13 October 1971

in 5-yrs.; perhaps 2100 sq. miles, he said, ^{consider-}~~included~~-
being uneven use (yielded at least 15 per yr., w.
no notable decrease). He was ^{friend}~~partner~~ and partner
(50/50) with Lee Bros of Tucson, who first hunted
Mexican jaguars here. JFF bought lion dogs
from them.

13 October 1971

Mazatlan, Sinaloa, Mexico.

Visited shop of Aviles Bros, who advertise jaguar and other
hunting. Roberto + Carlos, best sources, out, but I talked w.
(another brother?).
60+ yr. man. He said no law enforcement hereabouts (we
heard same at San Ignacio), that cats ^{shun} prohibited into U.S.
except under permit. He thought many less than 30
yrs. ago. I couldn't pry any specific info out of him
concerning places or hunters. They had 2 campers
trucks, with their insignia, camped in front. Could help, if
paid, I think. They ~~don't~~ know Poncho Ferreira, of course.

16 October 1971. Talked with man taking apples to Tepic. He
said Tepic (or tigriillos?) near Laguna Santa Maria, above
Tepic.

17 October 1971.

Nr. Texpan, Nayarit

José Pérez Medina, local truck driver + farmer, and others in
shrimp coop, thought "tigres" came down into swamps
in the dry season, December on. His friends and
relatives near Santa Cruz knew of none nearby.
Pérez said he saw hide (tigre or coat?) in market
at Texpan, recently. Francisco Orozco Vazquez,

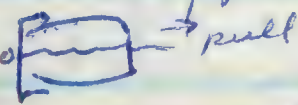
Felis onca

17 October 1971

Nr. Tuxpan, Nayarit

about 20, said could see tracks in swamps in Dec. The tiger ate fish (Chichén?) in drying pools, also turtle, woposher, iguana. He said Americans killed two "tiger" last year near Cerro Azul(?) Maron east of highway. These men did not seem to distinguish between ocelot and jaguar.

18 October 1971. At "crucero de San Blas," talked with Sr.

Heriberto Parra ~~Parra~~ E. Parra T., Aptos. 36, Tepic. about 60 yrs. Friendly. Boss of a roadside restaurant, Guide for hunters. Said had had 10-12 permits to take tigers, in past. Has in cage 10 hounds, used in tiger hunting. In 1968-70 Boone & Oochot Club records (Carnegie Museum, Pittsburgh), three of 4 jaguar kills listed have Parra as guide. One listed as Loguira Brava near Santa Cruz, another nr. Tancatala, another near Los Vases (east to S.). Other from Cañon del Diablo, Tamouipac. Two taken by C.K. Campbell & another Campbell, one a D.D.S. (1616 W. Loop S., Houston - writes in Cat Book Life). Parra had jaguar-calling "drum," which he demonstrated. Sound cylinder 10" diam.; leather stretched over one end; cord of plaited forshear, wound three center of hole & tied outside. Operate by pulling slowly on cord with fingers to make a rrrr  pull. He said ate everything, including iguana, turtle, & their eggs. He showed me photos, including one of an Apollo 14(?) astronaut with dead jaguar. He said one estimated 120 skulls killed, most smaller. Both sexes

Felis onca

18 October 1971

Nr. San Blas, Nayarit, Mexico

roar, but one can learn to distinguish. Young born any month. He had two jaguars in outdoor cages, with pipe passage between. Both fine shape. ♂ taken in May about 1967, when a cub about 1 month old. ♀ taken 7 December 1965, when about a year old. About 1968, when 4-5 yrs. old, she had 2 young, alive, but ate both. A year or less later she had two, one dead, but other survived well.

Next year she had one, weaker put on bottle, died at (1 1/2 mos.

[note evident to visitor in late Dec.]

1971), now, pregnant with two; expect birth in early November.

Kept separate (♂+♀) except when breeding. Then ♀ nervous.

He has pictures of ♂ mounting ♀. More roaring in breeding time. He knew of no more than one estrus/yr. (but became pregnant). Perra seemed reliable and willing to talk. He had Leopold book, he said, tho disagreed with taxonomy, etc., and also B. Villa's bat book. Had read much of animals, plus hunting magazines.

23 October 1971. Again talked w. Perra. He said when breeding,

male mounted ♀ many times, for several days. Formerly (30+ yrs.) nearly always saw jaguar on road to San Blas. Diminution largely because of cutting forests, and animals better hidden when present. He said tiger ranged widely, from here to Compostela, for example, and did not have small range (as Ferreira thought) [perhaps special case where fluctuating water and food, in swamps. He thought 2-4 ♀ per male. Food, by stomach exam, included many iguanas, also

Felis onca

23 October 1971.

Nr. San Blas, Nayarit, Mexico.

mapaches, javalina, practically everything. He said Oriles Bros. of Mazatlan knew "absolutamente nada" of jaguars, that they charged \$100 a day to hunt, but stationed men with drums to "answer" calls of hunter. Parra charges \$2000, with guaranteed kill. He said Sam Landis, author of hunting book, visited him one day. Bob Snow is Tepic guide.

P. said only about 3 guides equipped for tiger hunting in Mexico.

4 Nov. & 7 Nov. 1971.

Berkley

Nigel Smith gave me a memo p.p. acct of his observations (& govt. tables) regarding current trade in skins. He showed slides including some of jaguar skins in Paris. He thinks heavy reduction nos. through trapping, much illegal trade. But hasn't seen wild jaguar (has seen tracks).

Felis pardalis

12 October 1971

San Lorenzo, Sinaloa, Mexico

In house of Sr. Alejandro de la Cruz (La Cruz), a skin, little yellow or brown, grayish, said brought from local hunter. OF Ferrera ~~the~~ said ocelots mostly ocelot - formerly both abundant at lower levels. Both all brown ocelot, but (except for J F F) had more bands of cat names - another spotted one, another puma-like (said from puma, ocelot, jaguarundi). Some locals called ocelot "gato montes". Generally said to have been greatly reduced in recent past because of high price of pelts.

17 October 1971

Tuxpan, Nayarit

José Perez M. said he saw hide (of this?) for sale in local market recently. Local fishermen seem not to distinguish between tigre + tigrillo, so hard to tell which they speak of.

19 October 1971.

Tepic, Nayarit

In tourist store, Galería México, nr. Plaza Constitucion, ^{two} ~~an~~ ocelots and ~~marigay~~ skins for sale, about 120 p. each. Clerk said brought in by Indians, Hides looked fairly fresh. (one smaller, larger spots on. little space between.)

18 October 1971.

Nr. Crucero de San Blas, Nayarit

Sr. H. Parra said had about same habitat and foods as jaguar, but ate more smaller food (aguacate, aguacate eggs, fish, etc.). Formerly trapped by "milca" for skins, using steel traps. Now few, he thought, except in mts. where few trappers.

Felis pardalis

4 November 1971

Berkley

Dr. Stenberg said much ocelot trapping with steel traps near Curitiba and ^{I Brazil} Caceres, Mato Grosso. But he thinks cat populations there much reduced.

7 November 1971. Slides of R. Smith include some of dried ocelot hides, and of a package of hides being shipped (at Belém?) from Amazonia.

Journal - S. Mexico Trip

18 January 1972

Berkeley to Mexico City, D.F.

Left Berkeley 0600, drove to SFO airport, sat $1\frac{1}{2}$ hrs. in plane on ground before leaving for Los Angeles, San Diego, Mexico City. Arrived about 4 p.m. Fare \$125. Had some good views of upper half of Calif., but ground obscured most of way. Took bus to Metro, Metro to Revolution, and ascended near A.D. Quinte bus station. Took 8 p.m. bus for Oaxaca (about \$5, 1st. cl.) $8\frac{1}{4}$ hrs. in transit.

19 January 1972. Spent about $2\frac{1}{2}$ hrs. in Oaxaca until 0839, then took bus to Tuxtla Gutierrez (Crested Catline bus), about $9\frac{1}{2}$ hrs.

Stayed at Hotel Mexico, a parador.

Tuxtla G., Chiapas

20 January 1972. Visited Zoological Park and conferred with Miguel Alvarez del Toro, especially concerning jaguars and ocelots. He recommended area of Selva Lacandona south of Buenavista (Pedro Vega in Tenosiquine could arrange flight), and mangrove + zapote del agua area near Aspetagua, including Isla de Concepcion. He pointed out urine markings by jaguars (2 ♂♂, separate) and ocelot (1) in big cages. One jaguar cage about 25×50 yds., with central raised island + water pool. Prominent tracks on ground where he walked around. A. del T. said jaguars sometimes roared at night, any time of year. There were 2 mangays in separate cages, 3 jaguarundi. Also a few of most other common Chapin mammals, some turtles, crocodilians, birds, and snakes. In afternoon we took bus to ^{Blom} San Cristobal de las Casas (about 9 hrs.). There went to Casa Blom, a big square white house containing a museum and various people studying Indian and Aztec, mostly Americans. Mrs. Bertude Duly ^{Blom} was ^{anthropological} ^(wife of Frank Blom) authority from 20 yrs. ago, especially dealing with Selva Lacandona. She was away. But

20 January 1972

Journal

San Cristobal de las Casas, Chiis, Mexico

we found house of Bradshaw, of botanist of Calif. Acad. Sciences, about 3 blocks away. He was living with wife and 4 children, various ages 10-16. Had been here 5 months this trip, previously on other trips, so knew Chapin well. He said the forest NE of Tehuantepec, in extreme E. Oaxaca, largest unspoiled forest in Mexico, and not inhabited. Botanist MacDougal (sp?), Hotel Istmo, Tehuantepec, said to know region. Bradshaw also suggested a ranch, El Real, of Pepe Rubio, reached for 200 p. by plane from Ocosingo. Like E. of Ocosingo. There been guide Juan Bulme, of long experience. (Best pilot at Ocosingo, Pepe Martinez). Elizabeth MacClintock of Calif. Academy was visiting at this time. We talked over disease problems and other matters. We stayed in Parada Ciudad Real on the plaza (350. for 2). Many American tourists + cars in town, including various Mercedes, long-haired deneys, and coupes.

21 January 1972. Took bus at 11 a.m., a jam-packed local, back to Tuxtla Gutierrez. First visited mercado, where good number of Indian men in various costumes. Saw clumps of other along roads. At Tuxtla G., saw kind of political ceremony going on, so many people in town. We again visited zoo, talked with A. del T. about Bradshaw's recommendation. Observed the cat again - jaguar just stands with rear near wall as he squirts urine backward, not even raising leg or waving tail around. Also, he nearly immersed whole body in pool, but made no attempt to shake after leaving it. He scratched claws hard on a dead trunk, as if to sharpen them. One tree had some bark torn off. The

Journal

21 January 1972. Friday

Tuxtla G., Chiapas, Mexico

urine marks and ^{tracks} scratchings should be useful sign in jungle. Stayed at Hotel Esperanza.

22 January 1972. Visited archaeological museum, bookstore. One book:

Jatuli - Unumante (El País del Futuro), Pablo Martínez, 1971, 231 p.,

35 pesos. R. Costa - Amér, Ed., México, D.F. also wrote Lacandonia?

Herbert Kittinger, Por Tercera de Lacandonia. 1954. 349 pp. Ed.

Herrero, SA - México D.F. About Lago Lacandonia adventure, inflatable

boats. Near Bonampak Hotel, auto sales agency had Cheyenne maps on wall - indicated projected road Tenosique - Bonampak - Montebello.

Apparently roads & lumbering are destroying last jungle in México.

Planned to go to Tehuantepec on new bus - too crowded, couldn't get on. So waited overnight in Tuxtla. Market very good for fresh fruits & vegetables. Also dried sea cucumbers, dried whole shrimp.

23 January 1972. Took 0700 ADO bus for Pichucalco, about 4,

pesos for 7 hour ride. Road ascended quickly into pine- oak

zone. Mostly opened up except in canyons. Stopped in Bochil

1/2 hr. Some women carried earthen pots there. Red and white

blouses, blue skirts. Winding roads. Finally over a summit,

where more brushlands, some clouds. Tapichula in a valley

bottom, where patches of forest on some slopes - perhaps 50% in some areas. Palo, acropia common. Somewhat less forest

as descended to Pichucalco, a hot small town. Bus to Villahermosa

Villahermosa already jammed. We, with 3 others, took a taxi to

Palenque, said to be 3 hr drive, 60 pesos each. Driver decided

to go long way, via Villahermosa - passengers ate there - so

got to small town of Palenque about dark. A fairly good small

Journal

23 January 1972.

To Palenque, Chiapas

Hotel Palenque there. The flat country all along drive was ~~studded~~ ^{cluttered} with palms, ceiba, & other trees - rarely cut down. Some corn, some, bananas, other crops. Many yellow cattle. Lusher & swampy areas. At Palenque, small scattered trees on flat - forest starts at foot hills on both sides of town. Always del T. had said lumber there - local American campers had heard none. Fellow passenger said 2 lumber cos. at Palenque, one of them of big plywood company. Hot tropical climate.

24 January 1972. Took 7 a.m. bus for ruinas (1 peso), about 8

km. Free to walk and climb among them. Evidence of bats roosting in some rooms, & droppings or food remains in some corners. A few men were apparently guards, but very unobtrusive. Nearby a museum, not open at early hour. One caretaker said tigrillo & leoncillo seen occasionally, but never tigre. Nor ^{águilas} eagles. Said many people in area, much shooting of animals. He said howler sang yesterday morning to NW of the old temple. Also claimed usual assortment of mammals - pacas, mico de noche, etc. We saw houou, and ^{several} ~~red~~ orphe along road. Walked out about a mile to where camping area being leveled. Bus back. Then to lumber mill near R.R. station, where man in office said lumbering local and there were no roads from Palenque into the ^{deep} selva - he said to go to Tuxtla. One local said cost 1500 pesos for plane to Bonampak from Palenque. We departed noon on bus for Cataxco. There my market changed to another to

2nd March 1972.

Tansigine. Much of ride on corduroy road. at one point, crossed river on a huge barge, over half the length of crossing. Scattered trees & forest patches, and lakes, as before. Finally crossed the muddy Usumacinta river, shortly before arrival in Tansigine, a fair sized town. We found our contact, Pedro Vega, had gone to Tuxtla. But we talked to various. One Jose Aguila, restaurant owner, said he was a chicle and one of the first at Bonampak when discovered in 1946. He said tiger & ocelot killed by hunters within past several years - hunters from Mexico, not here, using dogs and lanterns. He also said now few alligators, few fish in river. He said no skins sold in local market. We heard ~~that~~ plane to Bonampak cost 300p.


Trucks go to Limonal, 18 km. from ruins, and one can walk that or ride horse. We plan to try that method.

25 January 1972. Took 0600 bus to Panjimo, on railroad. Then, 0800, bus to S. toward Bonampak. Through small settlements, fair lumbermill town, on dirt road. Through patchy forest areas. To Santo Domingo, and to Limonal. Last is farthest point on road. Perhaps 100 families in lumber town. Big caoba logs are brought here - one pond had about 500 logs, to 30-40 ft. Flew cone by trailer, towed by tractor, from vicinity Bonampak. Then loaded on truck & taken to mill. Jungle, partly cut, around town - parrots, cecropias, Tanagers, woodpeckers. Opinion varied on distance to Bonampak - 4 hrs. to 2 days. We took jungle trail, fairly well traveled, but up and down, with muddy patches. Trees to 100'. Corn fields. After about 2 hrs., hit tractor road from Bonampak. Heavy mud, but mostly walkable. Locals said in April

Journal

25 January 1972.

Nr. Limon, Chiapas, Mex.

or ^{may} ~~may~~, when dry, can drive caravans to Bonampak. Found occasional
"caribos" (Indians). Saw about 5 guns, mostly .22 small rifle. Reached
Leimond 1200 - arrived Lacanja about 5 p.m. There a big cleared
flat with about 80 families, thatched roofs, many orange trees (10/pers),
chickens, pigs, dogs. Men carried folded skins of "puesco de monte" or
moyama over stick on back, to carry wood; hidden square, hair inside .
Locals told us still 2 days on foot, slowly, to Bonampak. Said monkeys
on trail to Santa Clara, where no caribos, but far further in. Tigris "may
erraco," & I saw no tigre or ocelot skins. We ~~had~~ walked on along the
muddy road about 2 hours. Rain shower, camped. Heard a large
goatsucker, Nyctibene?, nearby. Various night noises. 3 Indians passed
with bundles of bows & arrows to sell at Leimond or to north. No rain
at night.

20 January 1972. Walked on $\frac{1}{2}$ hr., but increasingly ^{muddy} ~~muddy~~. Forest 100' \sim + at edge road clearing, and saw trogons, wood-crapers, large red-headed woodpeckers. Turned back to Lacanja, arriving 10 a.m. Other hunters said tigers "en el monte." Cloudy, but no rain. Saw occasional tree lizard or Anolis, frogs - no snakes or wild mammals. Back to Limón, arriving about 4 p.m. Heavy shower for 20 min. No bus until 9 a.m. So started walk toward Santo Domingo. After dark, a comerciante picked us up and took us to Tenorio. Name: Lopez Hernandez; raised this area and has relatives; temporarily helping business while on vacation. He said Pedro Vega, of Tenorio, well known, and had written book: Lacandonia. Brother of Vega had ranch "El Jaguar" near Las Arenas. Also near there, L-H told us he once bought a cub tiger, σ ; a friend now has it, grown. He also

26 January 1972.

Nr. Tenosigue, Tabasco, Mexico

mentioned someone (P. Vega?) giving tiger skin to someone. Confirmed that could drive to Bonampak in direct across, may. We saw a fox, a rat, and a jaguarundi(?) cross road in the 4 hr. drive.

Thurs.

27 January 1972.

No mail, & Vega not back, tho Sue talked with his wife. We took bus to E. Zapata, en route to Campeche. a man on bus said road fairly new, and that formerly they used launches on river for bus travel between cities. From bus, near river, saw scarcees, egrets, other birds, a large eguana perched in bush. Warm, cumulus clouds. 4 hr. wait for bus in Zapata. Then on to Campeche. Stayed Hotel Colonial, 14th + 155th.; clean, picturesque.

28 January 1972. Tourist store on street across from main big hotel, Belmar, had 3 ocelot skins on sale at 120 p., and a stuffed ocelot sub. Owner said

hunting trips could be arranged thru Hotel B. I went to S.A.G. building, 254 Calle 10, 1/2 block S. of Plaza Independencia, to talk with Delgado de Frenet y de la Faura (Ing. Horacio Martinez Mc Knight). He out, but talked w/ Ing. Sergio Gutierrez. Tried to find out number of tiger licenses issued; he inquired around, said no statistics. But said that new law would require hunters to get licenses in state where they hunted. He was vague about areas with tigers & ocelots, but indicated areas north and south of road east from Escárzega. I asked him how shops could sell contraband skins - he shrugged and said laws are "muy flexible." Only information he had was game laws for 1971, & seasons, although he seemed to be sympathetic. I inquired at Tourism office - again, friendly, but vague. Thought tigrillos in all state. Said alligators rare - but many water birds around Laguna del Carmen. We departed

28 January 1972

to Merida, Yucatan, Mexico.

about 2 p.m. for Merida on big air-conditioned modern bus. More and more cultivation, but much second dogrowth scrub and herbaceous tangle. Arrived in modern bus terminal at Merida about 5 p.m. Many Americans in town. Confused by Celler being numbered in both direction (but one way odd, other even). Cried up at Hotel Margarita, near 61 and 66, 4.50. City crowded, unattractive. Sea food rather expensive.

29 January 1972. Saturday. Looked through market, which was large and bustling. Saw no turtles, live wild animals, or birds. Visited zoo - 1 jaguar, 2 jaguarundi, no ocelots or margays.

Took crowded but second class bus at 2:30 p.m. for Chichen Itza. Camped about $\frac{1}{2}$ mile E. of ruin entrance. Heard many birds in the scrub, some of it thorny. Almost no mosquitoes. Saw large bats before dark.

30 January 1972. Sunday. Many birds called morning - including Ortalis, Yucatan jay (gp. 10±). Saw goshawks, owls, black vultures, barbets (?). Visited ruins. I saw birding (and potential but nothing) in ruins. Cisterne gutters about 3 miles E. Cisterne may be attractive to bats, but little bat sign in ruins. About $\frac{1}{2}$ overcast, but dry (one rain shower yesterday afternoon). Swallows in Las Mayas ruin. Swifts (white-throated) over road. Saw 2' long iguana. Ruins: Chich Castle, jaguar with green jade eyes.

a platform with gargoyle heads, ^{some} ~~some~~ of jaguars, S.E. of Ball Court. At edge court, a small jaguar tower - 3' long statue at foot, some in bas-relief, or some heads at top. Many other scarcely recognizable jaguar motifs elsewhere. | About 3:30, departed on bus to Valladolid, a bustling but scrappy town. Thence, south to Tapich, where bus had a flat. This area had many

30 January 1972

N. Quintana Roo, Mexico

thatched-roof houses with stick & adobe walls. One
Brushy forest but *Sabobuia*-like trees, legumes, almácigos, to 50'.
were said an American linguist, expert in Indian languages,
lived about 15 mi. S. On though sparsely settled country
of Quintana Roo with short thick forest, occasional trees above
to 50-60'. To Carrillo Puerto, small town. Camped nearby.
Many guns seen here, carried or sticking out of bags. .22's
and escopetas. Small dogs accompanied some hunters.
Many men know little or no Spanish; "puro Maya"
they say. Saw to large black and white (bellied) jays. Took
10 a.m. bus to Chetumel 31 January 1972. Man-
groves, swampy ground, flamboyant trees, bat. Stayed
last one hour. Had to send baggage thru customs inspection on way
out, on bus to Escárzaga. Two customs stops on road, but
"tourists" apparently not bothered. (Carrillo to Chetumel, fairly
well settled.) Left Chet. 2 p.m. La Moza, town with many
stick and thatch houses. 4 p.m., had road to north.
Ruins (Cheran?) a few km. W. Road off to S., such as to
Esperanza, 55 km. S. Forest fairly uniform, short. Finally
passed big lake on S. side, in fairly settled area. Then Asceradero
"El Centenario," and soon Lopez Mateos, not many miles before
Escárzaga. One plaza frontier town on railroad - bustling and
dirty. Camped about 1 mile S. of town.

1 February 1972. Chocholac called. Black & white jays too. In
town, went to Jefatura, Sector Forestal y de la Fauna. There are
six sectors in Campeche. Met there Raul Bertare Vaza of
Inst. Nac. Invest. Forestales, located 7 km. Toward Villavieja.

1 February 1972

Escárcega, Campeche, Mexico

hennosa. He said jaguars, ocelots, and other predators were not protected, the deer were, and quickly pointed out two stores which bought hides. He said main hunting area south of the E-W road, entering about km. 21. He introduced me to store owner Jorge Bernal A. at corner of plaza (Calle 29, No. 30). A fresh ocelot skin lay on counter (hunter said he got 70 pesos for it). Jorge very open about hide business. He said many jaguars taken this dry season - that he had bought about 100 during ^{the} last year. It thought 3-4000 must be taken annually from all Campeche. It showed me in house a large ocelot & small jaguar skin, freshly salted and stretched out. Said he would sell jaguar for 3000 p. While I was in store, another ocelot skin brought in, dried - Jorge did not buy it (poor color?). We photoed latter. One man, Manuel - , had dogs to hunt cats & other game. Most shot in daylight by hunter waiting by water hole. "Lampara" hunting poor. One area mentioned was Aguada ^{Seca.} ~~Seca~~. One visiting sport hunter was the Dr. (American) who had operated on ^{Pra.} Lopez Mateos. One man had killed two with 2 shots of 22, by by waiting for second after first came. He said enter at Matamoros, km. 24. Jorge also offered to send a boy with me to show me places, tracks, etc. (Tiquilla home young man - April.) He introduced me to butcher who sold javelina, deer, pavo de monte, paca, etc. I asked Jorge to get skull tiger & ocelot for me. He said he paca & jaguars also for common - called them "leónido" "leónillos." In market, saw large

Escarcega, Campeche, Mexico.

turtle, shell about 10" x 12". José said jaguar in Centenario zoo in Merida came from cub he got 2 yrs. ago. / We took bus to Villahermosa, stayed at Hotel Pinar Suavay.

2 February 1972.

Villahermosa, Tabasco

Went to Delegación Forestal, Juárez y Zaragoza. Delgado away, but talked with two others. They said Tabasco wettest state in Mexico, heavily populated, many ducks, but almost no mammal game except near Tenosique. Much in Chapin & Compeche, however. They said a local jefe at Tenosique would know more. / Visited market, large, which included many live turtles off at least 2 kinds, and piles of live squid about 2' long. Many shrimp, dried gar with stick thru lengthwise. Usual tropical fruits. No skins of wild fauna seen. With ducks for sale, many apparent cormorants too. / Visited Tabasco museum. Various jaguar representation and motifs in clay, stone, shaton. / Took ADO bus 3 p.m. for Tenosique, and stayed at Hotel Azulejo.

3 February 1972.

Tenosique, Tabasco, Mexico.

Looked for Pedro Vega at home, near river from plaza - he was still away for 2-3 days. But met his son, in 20's. He introduced us to "Lio" Manuel Villanueva, in large house nearby. In den, many photos of hunting parties, tigrillos, tigris killed. Several guns in cabinet. Manuel soon arrived. Hunting in Chapin near border, nr. Rodacanton, Salina, others - apparently enter in Agua Azul area. He had taken many parties in, or arranged it. Mentioned groups from Chicago. Had photos jaguar taken November - said to be 85 kilos. Mostly taken by calling, which brings them in to

3 February 1972.

10 meters or less. Use lampara much at night. More tigers than puma in that forest. Track tigers + ocelots along the river. Often put out bait (celo) - spider monkey bait. If some food left, animal will return. Saw season of "celo" and call much. But some groups hunt for 1 or 2 weeks and get nothing. He did not agree that commercial hunters had depleted game - still primitive areas where no hunters, especially since "guerrilleros guatemaltecos" around. He thought hunting poorer on Guatemala side, as "muchos colonos" there. Call (blow horn) with bang through gourd drum. He has had 3 animals, different locations, from one spot. Not recollect 2 adults together. Occasionally climb low on slanting trunk. Cat everything - one had fresh tiger's urine in stomach. Dogs not used to hunt. Many long hunting stories. Said had maps, memorandos, in office (Cobra distributa, next to church opposite Hotel Azulejo). I couldn't pin him down to estimate of numbers taken per year. / Visited Teodoro Post, local captain of Forestal y de la Fauna. He confirmed no game near Tenosique except venados. But tigers in Chiapas (Losantun area) and Campeche - Piedras area, in from Candelaria, and Aguada Blanca, in from Matamoros. Many puma and jaguar also there, where no people. Said Villanueva taken gpr. in. San Antonio Salas and Chantel (?), also good spots in Escaranga area. Jeep roads where logs hauled out are good places to look. Some tigers too. Some gone from Tenosique area for long - burning by Indians. He said jaguar hunting prohibited but no one ever shows him a skin, and he has gone to airport at Tenosique but failed to catch hunters. He says some skins sold

3 February, 1972

Tenejapa, Tabasco, Mexico

in Tenejapa, especially on Saturday. Post seemed glad to inform; talked slowly, clearly. Tiger skins sell at 2000 p., he said. / Many cochinos - lagartos in tributaries rivers, the taking one kind prohibited. / We saw 2 ocelot skins decorating table of one local house. Also, we saw tiger tooth used as ^{watch chain (?)} ornament by one man in Escárzaga. Post said that gov. hunters from Mexico city sometimes took 2 or 3 tigers - this supports M. Álvarez del Toro thesis of professional hunters. / about midnight, took train to Escárzaga - 3 1/2 hrs.

4 February, 1972 In market, butcher had cut up armadillo, another alive, and a pato on leash. A bystander said butcher sold a tigre and recently for 1000 p. Bused away. We walked out of town toward Chetumal, waiting for bus. On road found dead keelbug, partly skinned 6' alligator, ^{dead} Didelphis, black muntjac. Mr. km. 5, parrots. Two Arumida (?) by pond. Large olive-green Tanager? w. white throat; seen in roadside shrubs. Bus picked us up - we got off at "24," actually km. 25.5, La Libertad. Locals agreed tigrillos close by, occasional tigres. They took me to shack of main local hunter, but he was out. They said he sold many skins. We started walking S. to reach road to Aguada Seca, apparent goal of most hunters; said to be "gringos" there now. We saw cardinals, a tree squirrel. (Avis along highway). Walked to palm "pavilion" at various branches of road, in old milpa. Saw honeycreepers, popovers, black hens. Brown owls. Much herbaceous stuff under open forest, where occasional tree to 60'. Cecropia trees. Flocks of small parrots, and occasionally 1-2 large ones in tree. Talked with man coming from Tres Aguadas (3 hrs. distant). He said many ^(Brown Jay) deer there, also ocelots. Brown-backed, black-backed large jay with

Journal

4 February 1972

SE of Escorrega, Campeche, Mexico.

white belly & tips rectrices common, noisy. With alarm squeal, often given a swap - apparently of closed tail - even in flight. In forested areas saw sulphur-breasted & Aulacorhynchus toucan, tringids, ^(black & blue jay) black jay with blue upper parts & wings, woodpecker (red head, buff throat), blackbirds (coronine?), pigeons, gray doves, ground doves. We lost trail & backtracked. Squirrel cactus seen. A small falcon with ^(bat falcon) black head & breast, white throat. Chicle tree with scores of old cuts, some new; round apple-sized fruit with sticky sap and shiny watermelon-sized seeds. Big Phlaeosticte - type woodpeckers. Mod. sized Buteo (?) - dark gray upper, fine brown gray below. Heard or saw occasional Ortalis - about 3:30 they started to call from all sides, and continued. One stretched vertical atop a stub or called. Abundant bird, here, in spite of many guns. / Overcast all day, calm. Camped in a forested patch. Call of a larger ^{craiid} craiid (?) in evening. No Howler or caprimulgids heard.

5 February 1972. Dry, overcast night, & overcast morning. Roads muddy from recent rains - locals say drier later, especially May. Local guided us on path to road where logging trucks passed (enter Am. 20). On road 0900. Much mud. 10:30, Tree Aguadas - palm shocks lay a plant filled pond with jocasin. Then on along road toward Aguada Seca. Trees mostly about 20', occasional to 70'. Overcast day. Saw a white-tailed deer. Saw saw agouti (?) by road. Nabia (?) red-brown tanager, low. Small palms w. spring trunks. Army ant - woodcreeper near, low. Occasional stacks of logs 12' x 1 1/2', red wood (= ^{cacha} cacha or cadro). Road barely passable to trucks & jeeps in spots. Saw one truckload men w. machetes pass 2 pm. 1525, came to group of 5 stalked

Journal

5 February 1972

SE of Escarcega, Campeche, Mexico.

open shelters, where men had camped much, opposite an "aguada." Shell of armadillo near. 2 shot shells. / We went on for 20 minutes and camped. Forest fairly continuous here, sometimes to 20'. Many Artalei as before. Many between road in eve. I walked road with light for 2 hrs. Heard a new no. owl a caprimulgus. But saw two hinkajins high in trees - heard croaking first. Brown below, white belly, perched in tree by last aguada in night. Few mosquitoes. About 10 p.m., two cars went by on road in. (Later we heard that a couple of American families were hunting & sampling in that way.)

6 February 1972. Parrots seen morning, Artalei heard. Saw one hummingbird only. Back by aguada, saw small falcon again - black breast, white throat, rufous belly near ft legs. Killed both - Tree Aguada reached at 1215. We saw no cat tracks on road - some dog, but opossum, perhaps racoon, squirrel - no peccary, deer tracks. Walked on W. or NW. Reached gp. hut by an aguada at 1315 - Casperangita. Again ^{men} said Tigrillon and Tigrie there, & that they had killed some - I asked to see skins; they said they had been sold. Tigrie skin brought 2500-3000 pesos, they said. We were on different road than one out. In one forest patch I saw flock of 10+ of the blue and black jays, 70' forest. Brown jays common, noisy. Reached highway at "20" (about km 21 1/2) at 4:25 p.m. Met party of 10+ hunters, 2 trucks, from Puebla - they were stopped by the mud. But fast illustrated heavy sport hunting use of area. Took bus back to Escarcega. Met another pair of hunters, from Mex. city, at Hotel Icoahual. Bus unavailable again.

7 February 1972

To Tehuantepec, Oaxaca, Mexico.

Took 3 a.m. train for Coatzacoalcas - arrived 3:30 p.m.

Intervening country flat, green - cultivation, cattle, widely spaced tall trees of various kinds (ceiba, palma). Lakes, ponds, meandering slow rivers. C. a waterfront commercial ^{+ industrial} town, unattractive.

We took 2030 bus for Tehuantepec.

To Tuxtla G.

8 February 1972. Arrived 0130. Went to Hotel Istmo (31

Hidalgo, tel. 19). Found "Don Tomas" Mc Dougall, botanist, away.

Went to office of forestal, Capitan ^{Bo.} Salas, in Santa Maria - but no sign of him. Saw no animal skins in large market, but piles of live iguanas on sale. We took 1230 bus for Tuxtla G., arriving about 5 p.m. Mountains to E. of highway mostly cut, eroded, or had short dry deciduous forest, but patches apparent rain forest in distance. Stayed at Hotel San Carlos. Briefly visited ^{in evening} zoo, where A. del T. told us Mc Dougall had been there recently. We saw a few bats flying among zoo trees. The spotted cats were not sleeping, mod. active. Leopard rolled on back on bare ground.

9 February 1972. Received mail, including bat nets, at zoo. A. del Toro told us that Mc Dougall entered E. Oaxaca forest area thru Tehuantepec. He also said that a few years ago, when reservoir behind Malpaso Dam was filling, many jaguars were trapped on islets and about 300 were killed (compute density?). He still clings to idea of commercial hunters depleting Lacandon forest area. He told me how to get to Acapetagua mangrove area, and gave me letters of introduction to a guard and another man there. He said there were many ocelots on

Journal

9 February 1972

Tuxtla G., to S. Cristóbal las Casas, Chi

the high ground of Isla de la Concepción, but that the area was still very muddy. / North wind do today; fairly cold, overcast. We took 3 p.m. bus to S. C. las Casas, on way to Ocosingo.

10 February 1972. Overnite at S. C. las Casas. Looked over market, where many Indian products, but saw no wild avian or product, for sale or worn. Took bus to Ocosingo. It climbed through pine-oak zone, descended to upper broadleaf region. Ocosingo in wide flat valley leading E. airstrip at edge town. Small adobe town. Saw no animal skins in store. A few dozen costumed Indians seen. Went to office of Guardería Forestal - the capitán was out, expected back, but did not come. I talked with his wife. They had formerly been stationed at Palenque, where more hunting than here. She thought locals knew hunting of spotted cats prohibited, and were afraid to take them. No professional local hunters. She mentioned Malpas Dam, - said much wildlife was destroyed by it. / At airstrip, 3 small planes. Headquarters of polidestino control men, who had detailed maps of their region, which reached to San Quintín. Talked with one pilot and associated men. All agreed little hunting in area except for deer. "Nada" at El Real - pura venado. Hunters going to deep forest rare. 700 p. for trip to Agua Azul. Few skins brought in for sale. Compradores went to settlements to get them. Agua Azul main entry to deep forest. One man said he thought there were many monkeys of 2 kinds along river (Cerdo?) above (N. of) San Quintín (where many people). Mod. cloudy today over forest to E. - they said dried in April-May, but that was the season

Journal

10 Feb. 1972

To Ocosingo, Chiapas, MEXICO

of smoke. All agreed crocodiles rare. This town headquarters of a child group. I saw no game in or near town, one along road. Apparently not important trailhead for hunters. Returned to near La Cera.

11 February 1972. Bus to Comitán. Much pine-~~oak~~ and ~~decid~~ broadleaf ~~wood~~ forest, dry now, few people along some stretches. In

Comitán, found no ^{wild} animal skins in market, + saw no game.

We took 10 am bus to Ocosingo, where out Mexican immigration

Then 2 hrs. to Guatemala entry point, a small station. Bus

there (Ruta Loma), which took us on to Huehuetenango. Ocosingo

in lower dry area. But soon climbed steep-sided valleys

into pine zone again. Population low, houses solid and neat, much game pastures among stands small pine, conifer "planning" on slopes. Stayed Hotel Canada.

12 February 1972. Took bus on toward Parajachel. Change at crossing to small bus, which descended steep winding road to lake.

In small town by edge lake, several hotels, a number of fairly resident

Americans. Found L.C. Street, Chet 2945, near Hotel Monterey. He re-

turned from Univ. Michigan, Zool. dept. Specialized in snakes of Guatemala. He was very hospitable; we had use of ^a complete house. He

had already written me a letter, concerning spotted cat study site. In

addition, he suggested that I inquire of another anthropologists

working in Peten; inquire for them at Santa Elena (m. Flores). Names

of some: Fred Nick Hellmuth (sp.); Graham. Other info possible

from Marysmall father, now with center at Barillas (beyond

Huehuetenango) from which they go into undeveloped areas (Isthmus

(sp?) area. Father super. in D. city = John Breese. In Peten, there had

Journal

12 February 1972

Penajachel, Guatemala

been various air strips of oil companies, a sulphur company. But probably mostly abandoned. Stuart had been to visit airstrips in Peten years ago, but had never seen a jaguar. Once shot an ocelot, by waiting at deer bait. Pacific coast - west from Cocumtha to S. Chiapas. But forests there mostly replaced by cotton. / Stuart not particularly interested in birds & mammals. Much general information on geography, people of Guatemala. Friends of ^{many} prominent persons, and on an O.T.S. board. Many visiting foreign and students visit him. / We stayed as Tikal has been a National Park, about 15 mi. square, for many years. / Same laws, 1971 - probab. hunting & capture of ocelot, margay, & "cachorro" of jaguar. Ministry of Agric., Dir. Gen. de Recursos Naturales Renovables, Div. Fauna. Export skins require license, but tax. / Gun laws tight here (LCS). I saw no people with guns along bus routes (tho many in Mexico). Perhaps people less hunting oriented.

13 February 1972. Sunday. "Pancho" Stuart took us to visit the market at Chichicastenango; large & colorful. No cats in current carvings & sculpture, but many represented in old pots & clay figures in small museum here. / We walked in area. Ducks numerous. Coats on lake, & we saw 2 Podilymbus near a dump of reeds in front of Hotel Atitlan. Birds not abundant. I saw no bats in evenings, & Stuart said he had never seen one here. He thought that Alta Verapaz, where many limestone caves, a good spot for bats. / On lake saw gp. 3 ducks (small, dark), 2 shorebirds. Flycatchers in trees. Vegetation of area mostly short forest, now dry, largely deciduous, with green

13 February 1972

Jurnal

Panajachel, Guatemala
pockets in steep canyons. We saw 3 Ashythro (greenish bodies) on
face of a large stone wall. Seemed poor as collecting area.

14 February 1972. At 9 am., departed on bus for Guatemala City.

Arrived about 11:30. Crowded, noisy downtown. Put up at La Florida
(8th Avenida betw. 12 & 13 calle). Visited apartment of J. Van Kirk,
2-66, 6th Av., Zone 2. Not home; broke leg on motorcycle. Visited him
at Centro Médico in Zone 10. He had home on Lake Peten Itz'at, 41 km.
by water from Sayaxché. (L. Carpenter & D. Bradford had visited there). He
now protects wildlife. Said three jaguars killed in area last
year. Many ocelots taken, especially along rivers. Poas favorite
ocelot bait. Formerly took hunting parties in, but no more.
Little local hunting now. A Dr. Cordero, millionaire of Sayaxché,
has hunted much in past; probably thinks saw few jaguars
then. But JVK thinks still good population. Thinks some
range up to 20 km. diam. - return to same area after
a few days absence. Ocelot tracks within 1/2 hr. of his place,
any direction. Local guide - "Adán" - on ranch of Don Leonardo
Flores, went to VK place. We can stay there, or would be glad to have
students & other investigators. Caves nearby with no bones, some
very large (extinct mammals?). No hunting last 2 years. Remove
many - take cattle. Logging increasingly depleting forest. JVK
claims to know country clear up to Piedra Negra on Usumacinta.
Emphasizes abundance pigs & other forest game in his area. Will
talk again, look at photos. Visited Rodolfo Angueto, El Salto co.,
Calle 11, 2-51, Zone 1. Probably in 30's. Good English. Associated with
OTS, especially El Salto station (where family ranch) of. Very friendly.

14 Feb

Guatemala C., Guatemala

and anxious to promote research in Guatemala. Knowledgeable of aspects geography, climate, biology, & family evidently widely known and influential. Said that on Pacific slope, cotton had displaced forest and cats. He knew of none in mangrove areas. No monkeys on Pacific slope, except small gp. on slopes V. Atitlan. Peten - had little information, but thought illegal hunting and smuggling probable. He said that at a bar (?), La Puente, near Hotel Biltmore, senior Roberto Figueroa (sp?) had been ^{in Peten} jaguar hunter; had trophies - ^{now} apparently long-haired wild type. To Two Texas Tech students recently at El Salto, looking for project. Much general information, but few specifics about cats. He offered letter of recommendation.

15 February 1972. Rodolfo took me to see Lic. Mario Dory R., head of biology dept. in univ., and Director of zoo. Office at Botanical gang garden near Escuela Técnica (of army). Dory gave me further letters of introduction. He said a friend in Antigua told him that he heard that ^{through the} the Chamber of Commerce (?) of the U.S. Embassy, someone had offered 40± jaguar skins for sale recently (Rodolfo will try to check it). He said that at a zoo (?) near San Jose, Costa Rica, jaguars are sold. Zoo here has one male; none bred here in past. In captivity, bones of hind legs or feet tend to calcify. Spider monkeys on Atitlan at about 1000 m. in coffee area on Santiago's side. Said to be dying of pulmonary disease. Again, specific information lacking. / In an article in Historia Natural y Pro Natura (J. Ibarra, appts. 967, Guat.), Vol. 3, No. 4, Jan-May 1971, p. 15,

Jarral

15 February 1972

Guatemala City, Guatemala

Sherra says, book "The Guatemala Traveler" by Selden Rodman
advertises Belize as hunting area, guarantee a jaguar for \$1500
in 10 days, or return money. J.S. thinks actually hunt in Peten,
and may take any age. Advertisers are Ernest ~~Howan~~ ^G of Tennessee,
and Vic Borothy of Michigan. / Rodman thinks Sherra only inter-
ested in self-advertisement, but his articles seem good to me.
/ Spent evening with J. Van Kile, wife, Bob, & Jim - they have a
leisure organization, Natutrek, which takes people on tours to ruins
or jungle, takes photos, sells rubbings, and miscellaneous. He
came to Guatemala because not allowed to be professional
hunting guide in Mexico (by Corzo). Here 6 yrs. - for 3, took
group hunting in Peten at \$125/day. Hunted jaguars by
calling, bait, night light. Says that fire, dogs, lights, calling,
are no longer legal methods of hunting. Now protest animals.
Specializes in large black & white ^{photo} prints. Says that Dubois Bros.
in Guatemala ^{City} hunt much, all over world, including jaguar,
and have many trophies. Says Belize hunting co., which
guaranteed a jaguar for \$1500, used purchased captive animals
released and shot. Thinks tiger not eat carrion, not return
to carcass. Rarely attack cattle, but one killed 42 near La
Libertad, usually not eating them. Jaguar not cover kill. On
Salinas River, sand, in dry season, many tracks, and can
wait and see jaguar by day. Has hunted by going upriver,
drifting down, calling, using light. Near Sayatche has
seen jabiru, spoonbills, a pair of harpy eagles, he
says. Bill Morrow, of Cuernavaca, was professional hide

15 February

Guatemala City, Guatemala.

hunter and probably would give information. Stomach - one had eaten a paca. Usually not check. Had stories about small gp. howlers, 1 ♂, juv., ♀, near his place. Thinks little hunting of jaguars in Guatemala now. Some of what said was exaggeration - thought [♂] howler 70 lbs., said jaguar in zoo was ♀ (it is ♂). He was favorably impressed with Jorge Flores. He thought average one cub. In 3 yrs. or guide, hunters killed only 6 jaguars; mostly poor hunters. He himself claimed to have killed 3 or 4. By using bait, he thought he could photo jaguars. He thought Guatemalans had more respect for law than Mexicans; tho all in his area burned fields last yr. in spite of legal prohibition. Many settlers translocated from S. coast to Sayaxché area; said because Mexicans planned to dam Usumacinta + flood parts of Guatemala. Settlers could not make living; starving. These may account for guerrilla reports. Over

16 February 1972. Took 0730 Aviateca plane for Flores. Steep slopes under cultivation. River on dry dissected hills, at first. Later greener, broadleaved trees, cultivated patches. Patches fog between green hills of forest. Then flat, no cultivation, occasional lakes in forest. Grassy clearings, irregular as if natural, about 10% of ground. Then trails, fences, burned spots, dirt roads, occasional village as approached Lake Peten. Airstrip at edge lake. Bungalows, thickets of Maya International hotel close. San Benito - village - start of bus line for Sayaxché (7 a.m., 1 p.m.). Causeway (dirt road) 300 yds. to Flores, small town. Jaguars on lake. At edge Flores, met Len (?) Graham, Harvard (+ British) archeologist. He thinks jaguars and ocelots all over Peten. In Belize, one

16 February 1972.

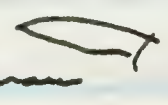
Flores, El Peten, Guatemala

dealer used to hawk him for sellers - B. saw him pay equiv. \$95 for ocelot skin. On Mamucinta recently, he saw a machan in tree, a spider monkey trail nearby (jaguar hunter). / Small bus left 1:50. Hot. Through patchy forest, cultivated fields (corn, banana). Fair dirt road. Logging trails entered at x. Passed small town - Libertad, San Francisco. Arrived 4 p.m. a cable ferry - barge across river (de la Pasión) to Sayaxché. Hotel Sayaxché at far side. Bring sample (Stevenson; Sunnyvale, Calif.) there. On wall in dining room, photo of owner Julio today & others with jaguar skulls. (Others show large tanager with caught by people. Small, 1 hotel, lumbering town. Road extends on to west, where again meets river. / Julio returned in eve. about 40. Willing to talk. Suggested Margarito Garcia as experienced hunter (Mr. Lake Peten Itz'at). Best place along Rio Holón - tracks on playon. Ocelot harder to see than jaguar; flies when turn on light. Jaguar "may tanto". Ranges about 20 km, he thought. Many foods. Hunting method: drag spider monkey carcass by tail; tie to tree. Jaguar follows trail, finds carcass. When see carcass moved, wait at night. When hear cry, turn on light. Olfaction very poor! he said. also, always return to carcass if anything left of it. / Everyone is a hunter, J. B. said. Have .22 rifle (& can get ammo). Fear law, but sell to buyers. He is going to Nicaragua in April to hunt jaguar with a Sonoga. Breeding season for March (celo). Always have two cubs. Thinker both ♂ and ♀ in each home range area. Swim well - when call them, can tell by calls that quickly cross river. Climb slanting trees. Almost never attack man. Sometimes kill cattle. Probably jaguar near town, but very wary. Dogs used - several breeds; ^{some} have packs. / Photo on wall - one said Rio Holón, La Culebra, April 1967 - 2 jag. Another, Rio B., April 1966.

16 February 1972.

Sayaxché, Peten,

Another, Rio Tamarind, August 1967 (sp. w. jaguar). Another, Rio Lacandon, 1967. / Julio said about 150 tigers taken there some years. / Lumberman Trade (?) Hughes, Robinson Lumber Co., Ft. Lauderdale, Tallahassee. Said in Belize, hunter shot jaguar brought from Tefar. Said Julio guided many hunters here. Said 1700 people brought to Sayaxché from S. coast for resettlement. Thought military police, out of uniform, were the "guerrilleros". Logging from here to border, N. + W. Can't sell timber, he buys it. From across (E.) river from S., at right stream, logging road deep into jungle to N. abandoned camps, buildings left; settlers move in. Probably we could get ride in from log truck. Take ^{cedar} cedar, cedro; leave rest. Haul out ^{whole} trunk with cat. / Another photo, Cordy Cordy, Jan. 45 3 (2 second jaw.) San Juan Arush (?), 1964, 1 jaguar. / Julio said jaguar skin brought about \$150 (metics higher?). / Hughes said \$5/skin goes to govt police for bribe. Think about 25 jags. per week taken. Said some skins go to Canada. /

17 February 1972. A boy w. aluminum boat (Corrado), took us to Van Kiki's place on Lake Peten Itz'at in 1 1/2 hrs. Along way saw cormorants, arburjar, brown jays, Arundin. Occasional huts, milpas. No dwellings S. of V/K place, on high bank at W. side lake near head. Saw 20+ large swifts; wings medially narrow . Orsopendular common, calling. Lake said to have tarpon, snook, needlefish, gar; two crappie-like types: calmato, blanco (black spots silver-very protrusible mouth), others. Say formerly crocodiles. / Said V.K., 15 yrs., said when building house 4 yrs. ago, ocelot came in daylight and attacked chickens. / Talked w. neighbor, Alejandro Flores, about 55, long resident of area. He said ocelots and

Journal

17 February 1972

L. Petexbatun, Peten, Guatemala

tiger still present. More tiger than puma. Cat veredo, jaguar, rarely birds. Not very communicative. No skins or mild animal remains seen around house, except a deer antler tip used to brush corn. Also visited Margarito Garcia, 1/2 mile to N, about 70 yrs. Said by Julio G. to be good hunter. Said ocelots present, & tigers. But best found and hunted when water in lake lower, leaving muddy places. He thought did not eat turtles. Used other animals mentioned - javali, ~~et~~ cocha de monte (white-bellied), tepicamulle, etc. No skins around - he said sold. He had few or no cartridges for his 12 ga single; wanted same ^{with 00} buckshot. Answered questions, but little info. (Probably thought I might inform officials.) He thought Rio Achara a good hunting area. / Returned to van Kester. Put up two bat nets, one at edge clearing in front of house, another in small clearing in woods. Took 2 bats by 10 p.m., one was by morning. Saw 1 or 2 by lake shore. Warm night - heard a chorus of toads from across lake to E. Saw a Bufo marinus (?) at edge lake. Saw eyeshine & apparent hemitrypa about 60' up in tree at edge clearing. Possum raided ground-floor kitchen in night. Saw one mod. sized brown owl, perched 4' above grassy ground. In day, a redtail-sized butes (?) perched ^{at} edge clearing, occasionally called (gray & black barred tail). / Bird had taken about "camister", a kind of larva under skin of man, days. Air bad. Squeeze out. Spindle shape, two black marks & hooks at lower end. Same over one inch long (Dermatobia?).

18 February 1972. Overcast. By canoe, paddled south along

lake shore. Most of forest also under 80' tall. Large carbon stored

18 February 1972

Peten,
L. Petenbatun, Guatemala

out. Occasionally, large fish jumped (tarpon?). Many low fan palms & other palms. Parrots, cormorants, arhuigos (ggs. 10± seen near Sayaxché). Dug in litter, old logs, bare trees, looking for salamanders, but no luck. Only one lizard seen all day, under house (collected). Evening - heard many chachalacas. Set up nets by lake shore. Took large Artibeus between 10:00 & midnight, but no others. Yet, dwellers in house say many seen ^{some} evenings. Looked around paths for ½ hr. at night with light, but saw only one possum.

Petenbatun, Peten, Grab.

19 February, 1972. With bail, we walked trail from house to W., to edge of swamp. Main tree was gnarled spreading "guinto", a very heavy wood, short & spreading, bromeliads and orchids in branches. In pulling apart one clump, 15' up in tree, I dislodged an opossum. Wet inside plants, some insects, but I found no amphibians. I rolled logs, dug ground, pulled apart tree plants, but found no vertebrates therein. Paddled E. across lake into patch isolated by growth of low spiny (mesquite-like) bushes, and fished. Caught colobos, blennies (protrusible mouth). Bail said much better when lake lower. Cooler today. Put up one net in house clearing, other by water. No catch in evening (or by morning). Fog over lake in morning; cool. Paddled N. to Don Alejandro's. Saw osprey. Left by canoe about 10 a.m. and arrived Sayaxché before noon. Again talked with Julio B., who thought Rio Holon best place to find tigers. He also thought more males than females, or ♂ more investigative and more often taken. We took bus about 2:15 for Flores, where we stopped and camped.

Journal

20 February 1972

Tikal, El Peten, Guatemala

Took 7 a.m. Púster bus for Tikal, arriving about 9 a.m. Two small & rather crude hotels there; airstrip, museum, army post. No habitation along road from S. boundary of park. But 30[±] a few hundred yds. toward Uoxcatun (sp.?), near a tractor road to north. Saw ruins, some still partly grown over with vegetation, largely Ficus. ^{Bat} Bat droppings in temple rooms. In forest saw Powellia in trees, ^{ocelot} turkeys on ground, large parrots, wood creepers, brown jays, heard toucan. Once saw possible ocelot (a fox) walk across trail; again, an aguti near edge clearing. In evening, saw a tinamou (Bourcatis?) walking on leaves under forest. Heard Tinamus call in eve. | In Templo de las Inscripciones, highest room (darkest), saw 1 bat, & 3 in visit next lower room (caught two for specimens). Camped near S. Acropolis. Many bats in early evening on trails. Hunted for 1/2 hr. at night w. light but saw no eyeshine. Heard no owls, caprimulgids. Dry site.

²⁷ ~~22~~ February 1972. Many morning bird calls. Walked trails, starting about 0630, but saw no mammals. In Sp. C. ruins, an exploratory ground-level tunnel entered straight in for 50'; contained 20[±] bats (collected 2, Carollia?, from ceiling, rough rock.) Returned to airstrip for 0900 flight - cancelled; will go 3 p.m. Clear day; hot. In sjo shop opposite museum, a mangay (?) skin for sale. One American traveler said that from here, about 30 mi. ^{E.} of Flores, he saw a tiger skin hanging up near road. Aguada Tikal had green heron, jacana, arbinga, white egret, other water birds. We walked to end airstrip, trying to follow trail on map in Birds of Tikal, but grown over or absent. at edge of a small

22 February 1972

Journal

Tikal to C. Guatemala, Guatemala
pond w. water and murrelets, racoon tracks and cat (house?)
tracks in wet ground. / Walked $\frac{1}{2}$ hr. up road to Uaxatun - thru
forest, little modified at sides - good bird + mammal searching
tracks, I think. / Departed by plane at 3 p.m. Passed for $\frac{1}{2}$ hr.
over nearly solid forests, E. and S. of Tikal. Big lake far to E.
Then a few small blue lakes, more openings + cultivation, large lake,
and E-W road (to Belize?). Then very large lake close to W. Soon
cloudy, but nearly clear at S. City. / To hotel Florida again.

²³
23 February 1972. Ave reunited J. Van Kirk, while I went to
Inst. Geografico (zone 13, near Reforma and Calle 4). Bought map
of land use in Peten (\$1). Then talked w. Luis Ferrate, geografo, in
expatriate geography dept. He was recent member Sierra Club, interest-
ed in parks and conservation, knew Rodolfo Arzaga and Stuart.
He gave me 1:250,000 map (4 sheets) of forest types. Showed me
maps of fauna (based on Sanders, 1946) and of ecological zones
(rather broad); these to be published, with 60+ others, in June.
He repeated that Guatemala welcomes investigators and offers coop-
eration. / Went to office of DIGESA, located in zoo grounds, to
try to get copies some maps. Talked w. Mario Acosta and his boss.
Could have maps - in fact, an ecological set, about 3' square, tomorrow
morning. I begged off + said I would wait for printed set. Their
gp. did not work in field but compiled results. They were very
eager to have maps checked in field, especially in view of
changes caused by agriculture (as on S. coast). / Brief visit
with Van Kirk. He thought he could attract jaguars with fish bait
to photograph them. Said Rio Sabie good for hunting because of

Journal

23 February 1972

G. City to Talisman, Mexico (Chiapas).

wide border. / Departed 2:45 p.m. by Ruta Lerma for Talisman, on Mexican border. Down to Escuintla - sugar cane, corn, banana, overgrown fields. Palms, ceiba, some other trees. Hot. Reached border 8 p.m. No outgoing inspection, and negligible on Mexican side. We camped nearby in burned cane field. Chiapas, Mexico

24 February 1972. Took bus to Tapachula. Vigorant large market, with much shrimp, banana, tropical fruits. Shopped. Departed 0845 for Escuintla, a bus near highway. Then by bus to Acapitagua, small town by railroad. Then waited 2+ hrs. for truck to Rio Arriba. Ox yokes still used this area. Road ended at edge mangroves, where a few thatched-hut, open-fire eating places. Hired Roberto to take us by canoe to Las Palmas, where he said Pancho Fernandez lived. Route first through hibiscus-staked narrow passages. Then wider. The mangroves up to 30' high, rooting branches descending from or higher 30 ft. Saw anhinga (5±), fish-eater (4), cormorant (2), osprey (3), black hawk (2), belted kingfisher (6), small dark blue kingfisher (1), other birds. Sp. 20± 1/2 naked men in water with big fish net. Others casting nets, or fishing with lines. Nearly all had dugout canoes. Green heron, smaller heron, jacanas, little blue (?) heron, Louisiana (?) heron (1), white egret. Channel widened to 50 yds. Saw raft of 40± ducks, large white tern (black crown). Then 1/4 mile wide channels in mangroves. Black mottler. Sp. of 10± storks overhead. About 4 pm. reached Las Palmas, where about 100 stick and thatch houses (no roads or wires), a fish & shrimp town. A tame spoonbill on shore. The Pancho Fernandez here proved to be the wrong one; other farther on at Encrucijada, 2 hrs. farther

Journal

24 February 1972.

Las Palmas, S. Chiapas, Mexico

on. Rather late, so we stayed. Town hospitable; teacher + judge came to talk with us. Brochets about town. We camped in football field. Large and small green parrots in trees. Saw several boats high over area - fast flying, small. Bigs came grunting around tent. Dogs came and barked from 50 ft. Tiny flies came thru netting and bit us. Warm night. Rooster crows all night.

25 February 1972. An owl called ^(faint) group group group, ^{about} 6 a.m. Many parakeets - 50+ in one tree. Orioles. Long-tailed crested jays. Dove called. | Locals say no ocelots, tigers, or game here - but farther out. The people eat turtle, iguana, besides seafood, chicken, pig. Many chickens, some ducks, kept by people (+ pigs, dogs). Alligators very rare. | Today is annual meeting of the cooperative, so no boats going until mid or late afternoon. | Omar Villegas will take us to La Cruzcigada for 7.5 p. He said that, about 4 ^{or} days ago, Jose Hernandez V., owner of La Concepción, was killed there by machete blows. Another man, from that area, thought investigation now over so that we could visit the island. All thought there were tigers at La Concepción, apparently a kind of wildlife sanctuary (or Tahiti, near Cruzcigada). | In morning, gp. 14 sparrows in > flew over, + other gbs. Occasional Frigate, including one w. red pouch. | About 2 p.m., left for La Cruzcigada w. Omar Villegas, in dogout w. about 5 h.p. motor. Three in mangrove passage. Saw saw bushy ^{area}, apparently on a bar between breakers and mangrove estero. Saw a ray leap high, splash back in. Saw asprey, occasional frigate bird. Herons. About 4 p.m. reached Kopskala - there a single couple,

Journal

25 February 1972.

S. Coast Chiapas, Mexico

one dugout w. paddle, a few chickens, dogs - family of Pando Hernan-
dez, about 30 yrs. Here 2 yrs. Don Miguel had not been here since
Nov. We camped in thatched open-sided shed. We walked $\frac{1}{2}$ hr. on
trail leading W. Saw a ^{Coati} porcupine clinging motionless on a vine,
12' up (10 min. later, in same position). In fairly open spot. Tail
had short black hair; no spine evident. Pando said there were
also deer (formerly more), tepalcates, poso, possum, racoon,
log coati, ocelot, tigre, (armadillo, anteater (no jaguar)). Only
open water salty. Kapapala a dry higher area surrounded by
mangroves; Tahiti was within such area, reached by trail to
E. (where Don Miguel had thatched shed for camping). Pando said that
last year Don Miguel saw a tigre near that shed. Also that Pando
saw one about 50 yds E. of his own house. On drive to ground,
main big tree is "zapote del agua"; cuts in bark indicate it is
a source of chicle. (or latex) Many fan palms, coco palms; some milpas.
In evening, a Nyctulium perched 100' ^{E.} of our camp shed, erect
atop a vertical dead branch, so that he appeared to be part of it.
H. / We paddled $\frac{1}{2}$ hr. in dark (moonlight) in canoe, with light.
Saw 2 logantos, about 1' and 3' long, eyes of an "armado"
(gar fish?), eyes of family of ^{racoon} opossums (+ or + - white eyes),
a few pairs of other red eyes (possums, racoons?).

26 February 1972. Dry night. We spent morning in walk to
Tahiti and around it with Pando & wife. Many zapote fruits
on ground. Saw magpie-jays, big parrots, woodhewers, heard
large woodpecker, saw oriole, chachalaca (heard many), a

Jaurnal

26 February 1972

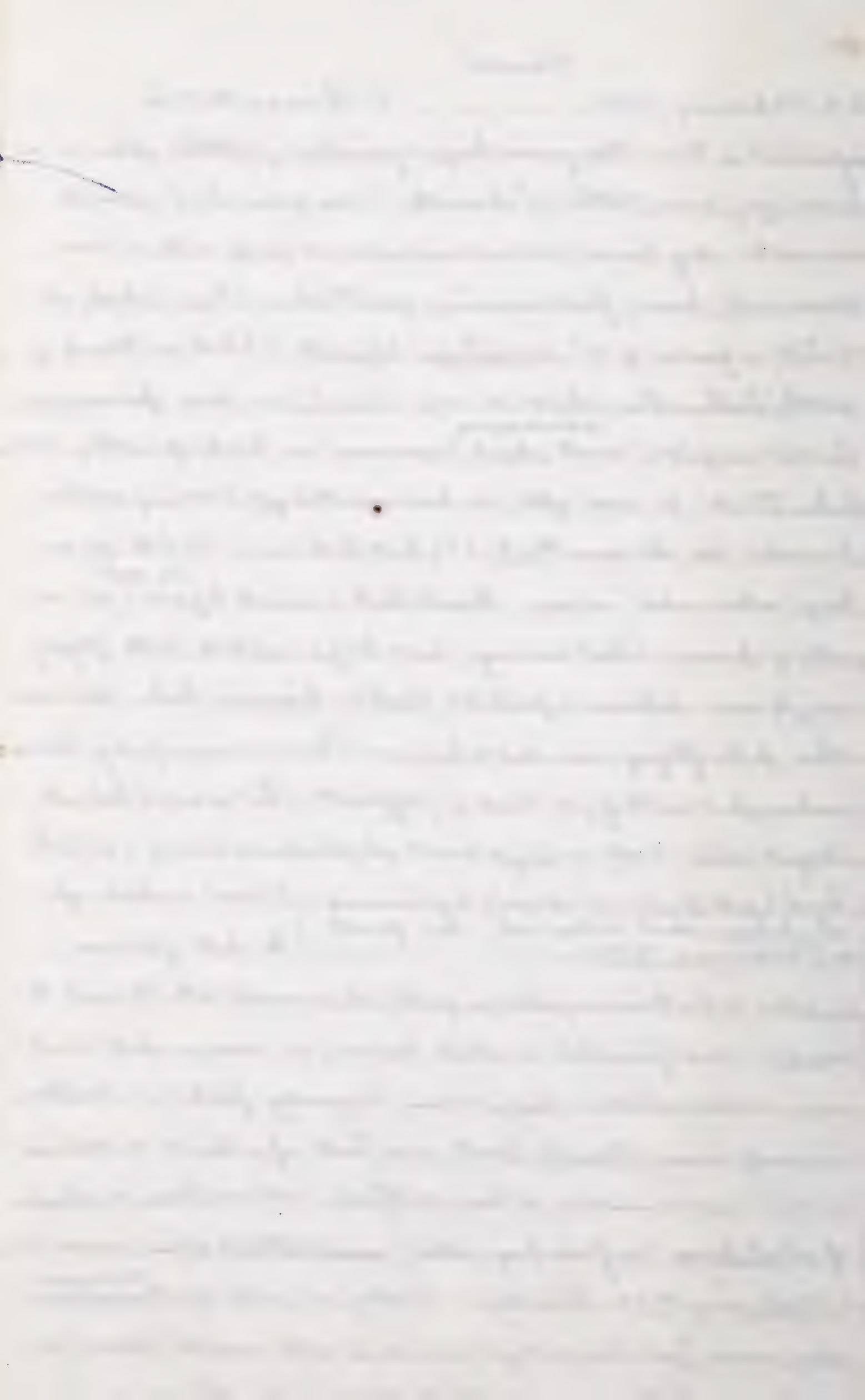
S. Chiapas, Mexico

squirrel in tree. Mangrove huge - junction of stilts often 10' or more up, some stilts 12" diameter. Trees green, but ground covered w. dry leaves. We saw no sure sign of cats - no excrement, bones, food remains, good tracks. / Near shack at Tahiti, a group of 10⁺ Saccopharyx bilineata (?) bats on trunk of partly-broken tree, about 12' up. Knocked one down for specimen. ^{Salamangues} Parcho caught a small skink (specimen) in bark of rotting down palm trunk. He said often in holes pulled-off bases of palm branches. We also saw Anolis (?), but took none. He told of a large "salamandra" in area. Parcho took a small lizard (No. 4469) in patio of house. / Last evening, saw large reddish bats flying singly over esteros - probably Myotis lucifugus bats. Also saw other bats flying near shed & houses. / Ground cover of dry leaves makes silent walking, or tracking, difficult. / Put up one 18' bat net alongside shed. Took 2 single small phyllotomids evening, another kind (pale head; no stripes) by morning. / Found a chick of chocholoco, about 2 days old, in forest.

27 February 1972

In late afternoon, paddled to La Cruzmizada, a path where could walk 4/4 mile to seashore. Two families in stick houses, w. many dirty and some naked children. Bay & Sr. Hernandez fished w. handline in surf, using Curema bait, and took after about 4 colinas (12-16"), 10 croakers, & two catfish. / At one house, 4 chicks of chocholoco, a few days old; said hatched them under hen.

27 Feb. 1972. Sunday. Today we visit La Concepción, where owner José Hernandez V. murdered with machete blows a week ago. / Parcho said that last November, they saw a



Journal

27 February 1972.

La Concepción, S. Chiapas, Mexico

Tigres come out of woods, go to drink near boat landing, and walk back. Also, that Don Miguel ^{A. del T.} had twice seen a culpe last November, at Tahiti; I think (check w. M.A. del T.). J Pancho said another seen once behind house. He had been here 2 yrs. Said they had never heard jaguar roar. / We started to row to La Concepción, supposedly 1 1/2 hrs. Got a tow at Cruzcruzada, & went rest of the way. There, house of large family ("children") near river water, and about 30 people gathered, apparently to have sort of a goodby party for slain owner. The widow told us all about it... where the machete cuts were, etc. Unknown who did it. / On way out saw pair of black hanch, espreys, anbergor, a chochalaco flew across 100 yds. of water, parate, verraser (maggie-jays), black multiner, a tiger tutten, blue berns, frigate birds. / With Pancho and local man, we walked thru woods at edge mangroves around west of the ranch, about 2 hrs. Central area largely tall grass. Many palms. Our guide said no monkeys, but deer, armadillos, rocoons, etc. - no javeli, or gallinaceous birds larger than chocholaca. Small ponds had turtles; saw old shells. Many garrobo (big ig caror), some a meter long. Saw one barilish, under spring wild-pineapple. Took two Amoles, an Ameria, & smaller lizard (spec.). Guide said two Tigres killed recently, one large ♂, one smaller ♀ (not pregnant), one about 20 days ago (the hna. said 25 days). Skins sold; large one at 1300 pesos. Bones thrown away, including skulls. Tigres covered by dogs, shot w. 16 ga. shotgun. Saw a gray

Journal

27 February 1972

La Concepción, S. Chiapas, Mexico

squirrel high in tree in shady forest. Zapote de agua fruits on ground; people pick them up and eat them. Our guide said he had been in area over 30 yrs. but not on that ranch. ^{He said} ~~the water~~ more game farther to S., tho less than before. We saw several outboard motor on dugouts during the day. | A bull had been killed; women hustled over meat. Lunch for all. Then a pile of "tender picante" made, & put in woodstove over open fire to cook. Several men sat in gro., drank agave drink. | We all went out 300 yds. into forest to put a cross, 2 candles, and a glass of water at site where the patron had been killed. | One launch came w. group, ^{including} ~~including~~ two with guns. One man shot a perched black vulture from a tree; it fell in water and was not retrieved. | We waited for tide to turn - then rounded back to Kaepesplala. Put up bat net. Warm sticky evening.

28 February 1972. No catch of bats, tho saw several near

shed; but 3 large moths in net. Prepared to go by paddled canoe to Lac Palmar; took about 2 1/2 hrs. Saw usual birds en route - about 5 ospreys in all, large & ^{small} ~~small~~ kingfishers, herons & kingbirds. A white head poked up out of midstream; = perro de agua, otter? The only outlet to ocean is near Lac Palmar; a similar town, Lac Barrer, located there. | Yesterday saw a spurred cuckoo in big mangrove at La Concepción. Later, at Kaepesplala, a hite (?) atop tree, gray color, barred tail; wingtips extended beyond tip tail. It flew out 20 yds., returned to perch. Onis in waterside mangrove yesterday, and on Kaepesplala.

Journal

28 February 1972.

Las Palmas, S. Chiapas, Mexico

at Las Palmas, had to wait for a group boat to ^{Pis} Arriba! (Las Bargas much closer, but only one truck a day leaves there.) So waited. Town very dead on Monday. Another house had two pet spoonbills (1 at owner's). Panchito ^{H. had} said parrots taken from tree holes in March - April. Various delays in time - no boat until 29 February, 0500. Load of fish, a few people, in dugout. Back to Pis Arriba. Saw 100± white ibis - some flying over, others perched on mangroves, including grayish juvs. As we river, one fluff at landing, 12± garzabon (ignora) for sale at 10 pesos (over a meter long - photo). Fish, crabs, unloaded. Dark croppie-shaped fish in river called "majarra". Truck to Escuintla. Mts. to E. rise high in solid forest. Took bus to Arriaga. N. of Escuintla, foothills to E. had more cleared area. (M.A. del T. says tall mangroves end about w. of Pijijiapan.) Gradually drier as go N. Arriaga zone a thorn scrub also dry zone. Changed to Tuxtla bus winding road ascended - dry deciduous forest, but some green-folaged trees and slopes. Some areas burned - also on coastal savannah to S. Burning will increase in next 2 months. One went to ~~plateau~~ basin ^{plains} ~~plateau~~, where still dry, thorny brush. Passed Tuxtla y Libertad. On to Cintalapa, Tuxtla. Area drier than in ^{early} February.

1 March 1972. Tuxtla Ishtuany, Chiapas. Talked w. M.A. del Toro.

He said a hill larger in Las Barras (near Las Palmas) ^{Island}. Area inside mangroves probably have jaguare still. Bot collecting - a hill, Co. del Huero (?), near Zapotán, about 4 km. S. of Tuxtla. Stream passing just S. of zoo had cover about 3 km. E, w. into. Prussia, a humid wet spot in S. Made down A. Albino Corp. Angostura dam.

Journal

1 March 1972

Tuxtla Gutiérrez, Chiapas

still in construction; reservoir will cover mostly farmlands, not wildlife habitat. Lake Malpaso - still ^{some} forested parts along shore. / Rec'd letter from Mac Dougall, telling of undeveloped area accessible from Centulapa (on Coatzacoalcas river). / M. A. del T. says salamander at Kapespala is large, dark, w. white spots (Amphytana?). / Most bats in Tuxtla parks in April-May, he said. / I put up ² large bat nets in the Zoo grounds about 6 p.m. Returned 9 p.m., 12 m. Took about 7 Artibeus jamaicensis (?), some with green fig; saved 4. Some with large fetus. ♂ testes large. One smaller phyllostomid (spec.), one Lancebus (spec.). / Looked at eyeshaire of zoo animals - tiger red, not brilliant. Monkey - green, big & brilliant. Acetab. reddish. White-bellied passerine clacked twice at me. Kinkajou eyes white, brilliant. Crocodile & caiman, red.

2 March 1972. Talked again w. M. A. del T. Then with Prof. Palacho (sp.?), director of Botanical Inst. He is that position a year. Friendly, & interested conservation. Recently he accompanied army officers on a flight to Selva Lacandona. At Rio de Oro they found a hunting party, which had flown in from Mexico City. The men had 5000 rounds of ammunition! [I think he said that the army men took the hunters out.] He knew Chejere vegetation well. Institute had been going since 1949 (?); Miranda worked here until he died (in 1950's?). / He introduced us to guard, local police, so that could trap bats in botanical area. I put 2 large & one small net there, under trees, about 6 p.m. Artibeus started getting caught soon after dark, before 7 p.m. All apparently same species as last night. Dissected several alive. Killed 12 ♂♂, 15 ♀♀. These included

Journal

2 March 1972.

Tuxtla Gutierrez, Chiapas, Mexico

several juveniles, gray color, poor skin warts. Of juvs., some ♂♂ had small testes (5 mm.), some ♀♀ inactive reprod. tracts, but all had full-sized forearm (60 mm.). Of ♀♀, 5 large brown ones were obviously pregnant, fetuses large & palpable. Some had dark enlarged ut. horns, and/or parov. the no milk observed. ♂♂ with large testes, 9 mm. long. I saved nove of these specimens.) This park has clean sand & pools, varied species tree, pink Telchuris now in bloom. But overwhelmed w. one ^{best} species, A. jamaicensis (?), or else note placed poorly for others. Big note in shade near among large lathered trunks, but 15' fine net among slim trunks, and still inundated w. same species. | Prepared for visit to MacDougall in Tehuantepec.

Tehuantepec, Oaxaca

3 March 1972. Took room here to Tehuantepec. Along way, apart

dry, many leafless trees, smoke in air, some burning.

Found "Don Tomas" ^{MacDougall} in room at Hotel Istmo. He was plant collector, had been coming to this area since 1930 (?). Collected Begonia or selected plants for collector. Had collected small mammals for AMNH, included in Goodwin's "Mammals of Oaxaca." Had collected for Hobart Smith, now at Univ. Colo. Recently had article in Oryzopsis Journal, June '71, about forest area ^(China wilderness) of E. Oaxaca. H. van Dusen had helped him get it published. | Entrance to Cerro Baúl area near junction Juchitán - Arriaga roads, S. of Cintalapa.

Carlos Meri was ranch owner (Sr. then, Jr. ran ranch). Various scientists had been to that forest area - Rawley, Benford, Brubaker, laid quartzite there. | Lumbering benefited in that slopes burning practiced by former cattlemen. | Another way to

Journal

3 March 1972

Tehuantepec, Oaxaca
~~Nr. Sta Cruz Totolapa, Chiapas, Mexico~~

enter in from Los Flores (= Motozintla area) on highway
to Coatzacoalcas, then go E. to ^(Santa Maria de ?) Chimalapa, then up river Q. in
balce (barte said pass). Region uninhabited, wild rain forest.
He reported story that about 10 yrs. ago a rancher near Tres
Picos, NE of Toluca, said lost 96 head cattle to tigre.
Malpais dam area - partly still rain forest, in rough limestone
area on Ocosingo (sp.?) side. | Lumberman - ^{on R. Sanchez?} Rodolfo Moray.
Shin buyer in ^{Tehuantepec} St. = Francisco "Chis" Ortega, who has dyggood
stand edge of playa (in portales). He lives Av. Francisco 76. | Says a
trail cut N. from Tehuantepec to get to area palms for forest;
another entry to area. | Pruvia - he said a Dr. Charles once (wanted
to?) buy it to protect pavor (^{found guano} trader). Nearby areas: El Triunfo,
^{Feria} Hacha. Sadam. | Met Juan Ramirez, Mac D.'s field assistant.
He said once saw an owl attack and eat a dove. I thought take
mainly birds. Mac D. said one day they saw 3 separate owls.
J.P. said many tracks tigre along his Coatzacoalcas, in upper
area where go by balce (and no people). | Whole of E. Oaxaca
apparently rain forest, uninhabited inside, the lumbering at edges.
| On first (or?) visit to Pruvia, Mac D. saw big tigre skin. He
thinks these mostly used as wall or floor decorations, & that
owl preferred for coats & trim. | Don Tomas told of a cave
with swifts on San Felipe, just before descend to S.C. Los Casas.
another at Aguacero, a cliff above Rio Flores along approach to ^{Coa-}
^{cualtlan} cauiltla (sp.?). | Stayed at Oasin hotel in Tehuantepec.

4 March 1972. Market now has pineapples, watermelon, starting
mangoes, few bananas. I saw no animal tracks. | Spent morning

Journal

4 March 1972

Tehuantepec, Oaxaca

ing with Don Tovar. He said that Leopold's book (wildl. Mex.) did not give true S. limit of Turkey, or he had seen a pair near Co. Baul, and Ramirez had ^{also} seen them in E. Oaxaca. Also, he said that the call of black chachalaca was well represented, probably referring to another kind of chachalaca. In captivity at zoo, total call not heard. Part resembles ^{bd. called "rompe góncero" locally} tearing piece of cloth. Part sounds like the clattering wooden rattle, noise - molins - not like Oreotia. Apparently Stuart Bailey, same as with students from Wash. State Un., Berford of Cal. Acad., and others had stayed at Cerro Basil ranch (of Carlos Minnie) in years past. Minnie lives at Pico de Oro; son at ranch, 40 km. in. Not friendly with the Rudolfo Sanchez - ^{Monroy} Murrey lumber outfit, based about 1 km. S. of Los Cruces below Cortolopa. Don T. suggested I ask uncle Don Emiliario there, then get truck ride to summit about 40 km. in, talk to engineers and get other truck riders in. Road to near Minnie Ranch. Not supposed to cut ^{forest} in Chapo Oaxaca, but apparently doing it, is retreating timber. / Chanted area in cloud forest west of Tehuantepec; Juan Ramirez knows it well (good collecting site?). / We hoped to meet skin ^{dealer} dealer Chris Ortega, but he was not back from Chihuahua by mid-afternoon. We took 6:30 p.m. bus to Tapavatepec and camped.

5 March 1972. Sunday. Took local bus about 0730 to Pico de Oro, at Oaxaca. Chaparral line. House of Carlos Minnie (German parents) about 200 yds. before border caseta. We found Minnie, about 70 yrs., tall, with bad left leg, at home. He was full of talk about bad experience with visitors, including scientists, who shot wildlife, including Trogon, Tapir. Said Bailey shot ♀ of "saturny eagle" pair. Another was hunter to sell skins of birds. He said area

Journal

5 March 1972

Riso de Oro, Oaxaca, Mexico

of Cero Baul ranch (300 Brahmas) now cut over, overgrown, with little wildlife, and therefore had to go in deeper. But now armed men there and border + lumbering dispute, so undesirable. / In his house he had skin of ocelot and jaguar. He said latter called "petatillo", meaning lots of small spots, characteristic of dry, drier areas (s. slopes). When started ranch, 17 yrs. ago, puma and tiger killed stock. But no tiger. Killed ^{4 or 5} 5 or 6 tigers. Have seen last 2-3 years. Tiger found the palm thickets, where favorite food was white-lipped peccary (sevos). Puma could not handle the large animal; puma took smaller livestock, tiger larger. Ocelot very shy, nocturnal; preyed on hares and turkeys. Favorite food is red-legged parrot. Everyone hunts. Black chachalaca gone. / Said Roney Talley (sp.?) worked for Rawley; quit in disapproval. / Monkeys now far in - only spider monkey (good eating). People shoot & sell, sometimes several, to get young to sell. There are some local professional hunters. / Ocelot took hare from one man. So he borrowed dogs, tried ocelot. Threw stones at it; jumped from tree to tree. Finally, a perch branch broke, ocelot fell, fought dogs, shot. Skin, large, brought 300 pesos. Large ocelots may take mazama, but not javalie. He thought jaguar much less agile than puma, on ground or in tree. Puma faster. / Jaguar kills ^{cattle} by taking two leaps, about 5 yds, landing on back, biting neck. Then based on seeing one do it, say twice. Smell of tiger scares livestock. / Merino was friendly, said glad to help us get into forest near ranch, but conditions too unsettled now. We delivered photo prints sent by Don T. Mac D., taken on ranch by ^{late} Oren Howard about 3 yrs. ago. / Hitched

Journal

65 March 1972.

To Textla Gutz, Chis., Mexico.

truck ride to new lumberyard near km. 54, before Las Cruces. House of Don Emiliano here, and waited for him, but did not return and almost no one there on Sunday. Had hoped for truck ride to forest. | Took a collective "coche" to Cintalapa, local bus to Tuxtla, where went to Hotel San Carlos.

7 March 1972.

Some cumulonimbus clouds; cool. Took bus to San Cristóbal las Casas, where went to ^{Bloom} Cora Bloom. Pat, an assistant from Calif., told us something of Lacandonia. Agua Azul headquarters of people who hunt or take people hunting. Lacandonians make clay figures of jaguars, fairly lifelike rather than stylized, about 4-5" long, some painted (have in museum). They also used jaguar (and other) teeth for decoration - saw one necklace, with teeth between seed beads. Bird claw sheaths also used. Some Lacandon chants begin with jaguar phrases (?). Hunted jaguars with bow, arrow; now with guns. Authority on jaguar in ^{Bloom} Robert Spruce at Mex. Anthropol., Mexico City. | A ^{girl} ~~guy~~ visitor said that in February she had accompanied a group from American University? on a jaguar hunt, starting from Escár-sega, going by 4-wheel drive car. They killed peccary, set out for bait, waited at night in hammocks, but got no cats in 4 days (she then left). | ^{"Trudy" Bloom} Gra. Bloom very talkative and of strong opinions. She did not know that jaguar-ocelot hunting and trade illegal. Very worried about deforestation, hunting, influx of agriculture, in Selva Lacandonia, and apparently ^{related} lectured on this subject, with slides, in Mexico City. But she had ^{no} specific incidents to concerning jaguars. I saw at

Heilbig says:

Dr. Veltin
Senckenberg Museum
Frankfurt

{ has worked on bats
of El Salvador; got
disease from them.

Journal

6 March 1972.

To S. Cristobal, Chi., Mex.

least 2 jaguar hides in the house, which is largely a museum.

Met Karl Heilbig, geographer from Frankfurt, who has written book
(out of print now).

on Acconasco area and on upper Irijalva (1961 German; 1964,
Spanish ed.; Inst. Ant. + Hist., ^{Tuxtla} Tuxtla). These books, in library at

Casa Bloom, would be very helpful to zoologists working in those regions.

We visited retired couple who ran hotel by airstrip (Wally -; from
S. Dakota). They said many inquiries from people who wanted to buy

a young ocelot. Said that in past years, many jaguars brought
in (one buyer said "only 70" in one year). They have 5 years.

Had heard usual stories about hunters. He had heard that 3 hunters
recently killed 11 jaguars on Acconasco. Much worried by forest

and land destruction, erosion, wildlife depletion. / Mrs. Bloom wants

Casa Bloom^{B.L.M.} to be information center for conservation as well as
anthropology. She claims to have much influence. / Wally said

that government raised and planted 5000 young ^{oak} ~~oak~~ trees. The
local people then proceeded with their annual burning. / In April,

said can scarcely see bulls around Los Casas. On bus ride

back, saw 2 large fairs going in a flatlands SE of Tuxtla.

→ March 1972. Again talked with M. Alvarez de P.T. He said no

tigers on close side of Malpaso reservoir, the probably are beyond the

dam. He mentioned that governor was going to fly over Lacandon area

(today?). Later, newspapers said that huge area between Jaltit and

Acconasco had been given to Lacandon Indians - Don M. thought

this meant it would be logged. / M. told us of cover with bats

a few km. toward Irijalva from zoo; we failed to find them

hot day in. hitting flies. / Visited New World to archaeological

The first thing I noticed when I stepped
 out of the train was a sense of freedom. The air was
 fresh and clean, a stark contrast to the stale
 atmosphere of the city. I took a deep breath, savoring
 the moment. The sun was shining brightly, casting
 long shadows on the ground. I felt a sense of
 peace and tranquility that I had never experienced
 before. The people around me were smiling and
 waving, their faces lit up with joy. I felt like I
 had found a new home, a place where I could
 truly belong. The world was so beautiful, so full
 of life and color. I felt like I was part of
 something special, something that was truly
 mine. The future was bright and full of
 promise. I was going to make a difference,
 to change the world for the better. I was
 going to show everyone that I was capable,
 that I was strong. I was going to prove to
 myself that I was worth everything. I was
 going to live my life to the fullest, to the
 very end. I was going to be happy, to be
 free, to be loved. I was going to be me.

Journal

3rd March 1972

Tuxtla Gutierrez, Chiapas, Mexico

Foundation of Brigham Young Univ. (Pres), located near monument S. of archeological museum. 5 Americans employed there. Apparent boss ^{on + off,} said they had worked in area for 17 yrs. Now working on coast and in La Venta canyon (W. of Ocosingo). Formerly there were jogueros, but none seen last several years. They thought hunting and deforestation had decreased now. One said skin price of joguero 500 p. several years ago; now much higher. One of them, Pierre Aguirre of Berkeley, was apparently of family with ranch near Villa Flores. These people not too friendly with the Casa Bloom group.

8 March 1972. Moved 0500 hrs to Malpas. Visited Don Miguel at zoo again. They are increasing restaurant + museum space. Visited the Delgado of Frontal, but he knew almost nothing of jogueros or hunting, only that it was prohibited. He said enforcement poor because communication poor. He had been in position here only a month or so. ^{Francisco Ferrera} (They know of Publ. Manó's books on Lacandonia) ^{Nam Ferreira (?)}. We took noon bus to Tehuacan. There again talked with Don T. Mac Donnell. He thought the area given to Lacandonia might indicate preservation, as only 66 families involved, and no facilities for removing timber. But he feared that agrarians might still be able to develop region and move more people in. Talked with Chris Mantony, who buys some skins locally. He said he was offered recently an ocelot skin measuring 110 cm., but seller wanted pesos 1500, which was price several years ago. Now, 60-70 cm. hide price about 100 p. (formerly, 100 cm. = 1500 p.). 1 m. = full grown. Chris said that recently he was offered 9 with small sub, alive, in ^{for 300 pesos} a large tin; said sold to Lord Telegrapher. Don T. had once had a pet sub, brought for 30 pesos, said yrs. ago. Chris said any of joguero skins was Santo Domingo Petapa, apparently in Matias.

Balls -

Pablo Matanzas (= Pedro Vega)

Jakarta. usance on the
Flowers & ornamentals.

Big Game Hunts - b. Jack O'Connor

Herbert Rittlinger -

Por Tiera de Lacandonas
(adventures)

Journal

8 March 1972

Tehuantepec, Oaxaca, Mexico

Ranero area - enter via Laguna. Chris said one caught not long ago in a pit, tho this not a usual method of trapping. He said still ocelots near Angula (ruin and hill near Tehuantepec); once ^(10± yrs. ago) he shot 3 there about 7-8 a.m. by squealing like a rabbit to attract them. Usually many skins at this time of year, as water scarce & easy to hunt near drying ponds. Usually hunt at night, with light; best results about 2 a.m., he said. El Convento, ^{Convento} nearby area w. same, also still had ocelots, raneros, Chris said. Puma skin of no value, he said, nor margay (too small). Chris had secured ocelot skin to stuff, for use in an old Tehuantepec dance, in which passed around the stuffed animal (to be performed here for the President, soon). Margay called Yagobuche, which means tree climber. Found same area as anteater. White-Tailed deer, foxes, ~~coyotes~~ ^{coyotes}, also brought in locally. Contridger - now cannot buy unless belong to hunting club, or register guns and get permit. (But Chris makes own powder, cuts up wire for shot). / Don T. mentioned that Pony Valley & Alvaro Roda (sp.?) accompanied Benford into Cerro Baul area, going by mule from Zimatapur. / We took late bus for Oaxaca.

9 March 1972.

Oaxaca, Oaxaca, Mexico.

Looked around town and market. Leather purses with hide of deer on outside seen. Store El Coballo Mixtos, M. Cobres 104, m. corner Aldama, had 3 stuffed ocelot cubs on display, a purse finished in jaguar skin too. In rear room, a crate had been opened and lurched at least 20 ocelot hides, plus mazama and others. This evidence indicates no effective

Journal

29 March 1972.

Oaxaca, Mexico

prohibition of commercialization. / In museum, carved jaguar
lover, and some jaguar figures, see said.

10 March 1972. I went to the Agriculture office and through
four steps got to Ibarra, presumably the forestry delegate.
They were having today a "reunion" of all the local sector
chiefs, about 20 of them present. Ibarra first explained that
Oaxaca did not have jaguars, but, with aid of a young
assistant, we explained that there were in Chinelo area.
They told me to come to a meeting of the jefes in the Cámara
de Comercio at 11 a.m. I went and Ibarra introduced me,
but said I wanted to obtain skins. Asst. + I quickly
corrected him, & he asked group where found jaguars, & he
mentioning Santo Domingo area as a place of hide commerce.
The Tehuantepec sub chief spoke up and verified occurrence
there. He did not think hunting had diminished numbers there.
Then no one volunteered, until I asked those to ask about south
coast area. Then Puerto Escondido, Huauclilla, Huam-
chula, Cacahoatlán mentioned, but no specific men
to interview. Boss suggested Club de Fútbol in Matías
Romero. Someone suggested: Dr. Jaime Larumbe in
Oaxaca city. There was agreement that there was much
contraband and that skins were used to manufacture
articles, but no one seemed upset by this. In fact, the
Tehuantepec men started to say, "the best way for the
señor to get a jaguar is . . .", when an assistant cut
him off, saying I didn't want animal or skins. /

Journal

10 March 1972

Oaxaca → Mexico City

Took 3 p.m. bus for Mexico. First few hours passed through much-gulched, grazing land. Arrived about 1 a.m. stayed nearby hotel.

11 March 1972. Saturday. Went to Hotel Iserih, on Iserih Catemina. Local sight-seeing in city.

12 March 1972. Sunday. Went to zoo at Chapultepec Park, where saw group of muntjac deer, among wide variety. One small jaguar cage (jaguar?). Then to Hotel Camino Real, site of N.A.M. Wildlife Conf. | Rollin Baker told me that there were some jaguars and ocelots in coastal region, centering at Tampico. Area north to La Pesca is thorny, protected; has ocelots. But all area being turned to cropland north of Tampico. A ranch at Acuña, north of Gonzalez, ~~is~~ owned by John Muehman of Dallas. Jaguars killed or taken cattle, but other game protected. Good base for wildlife studies. He also mentioned other men who might have information. Baker has had no personal experiences with jaguars or ocelots. | Arthur Greenhall said that about 1932, at site of Madden Dam, Parana, there were jaguars. One followed him along a trail and remained sitting when he looked back; the cat watched away in his own footprints. | Rollin Baker also said that from Cd. Valler to Tampico, to N. of highway, thick forest which probably include jaguars. A man from Monterrey said that about 10 miles N. of Manuel, there was a hill where jaguars had been seen (or taken?) - [Acuña area].

13 March 1972. Attended meetings of N.A. Wildlife conference. Talked with Juan O. Gosti of Venezuela. For Univ. Helsinki.

Journal

13 March

Mexico D.F., Mexico

Liver at Rancho Grande mostly (but no jaguar there; 2 skins in museum). He said jaguar hunting prohibited in Venezuela, but many killed, skins smuggled to Colombia via rivers (center Orasco?). He had never seen jaguar, but thinks can tell nos. + range by tracks. He thought diameter of home range about 20 km., & that Territorial (one family each territory). Favorite food copybara. Jaguar rarely attack catt. Skin price high, over \$100. Occur in closed savannah, near water. Ojeda reported on propagation of copybaras in Venezuela on big ranches. I also talked with Gerardo Biedowski of IUCN, a native of Venezuela with much experience in Costa Rica and other parts of Latin America.

~~15 March~~ 14 March 1972: Attended more meetings of NA Wildlife Conference and talked with participants, including Ray Dorman.

15 March 1972. Talked with a student, "Manuel," at school of Anthropology at museum. He thought that many hunters, mostly from U.S., flew into Lacandon. Probably took over 100 jaguars a year there. People near air strip helped as guides. He said that about 80 families of Locanderos. They had ceremonial hunt of jaguar by tracking. Certain ceremonies at each step of hunt. Skins used in costume of officials, and teeth. Frank Bloom^{Blom} had published this information, he said. A road being built from Salto de Agua to Ocosingo. Others planned from Palenque to Bonampak to Comitán (via Montebello). The

Journal

15 March 1972

Mexico City, Mexico

Chantals of Ocosingo region had moved into Lacandon area in numbers, he said. Robert Bruce, of Mexico R.F., has published paper on linguistics of Lacandon area. | Talked briefly with Bernardo Villa. He repeated story of using spider monkeys to bait jaguars - about 12 monkeys per jaguar killed, he thought. He admitted that law enforcement poor. Partly because some privileged hunters were relatives of state governor (Tabares) or president. The last, used dogs, hunted in western Jalisco. There was research station of university on W. slopes of Jalisco; some jaguars in area. Villa said they had had some trouble with H. Parra of Cuervo San Blas. Latter had used one of his caged jaguars to make trouble to fool hunters who employed him, Villa said. V. told of women who came to him wanting permit to export a purchased ocelot; the animal was confiscated. He said only 4 permits issued last year to take jaguars; 2 to Mexicans, 2 to U.S. hunters. Cost 2500 pesos each. (= \$200 U.S.) | Met Caroll Henderson, now in Air Force, Oklahoma, who had taken OTS course in Costa Rica, and now wanted to start wildlife course here. He had a mimeographed volume prepared at Iowa State & printed by Univ. Georgia concerning wildlife of Costa Rica, including data on interview with people concerning spotted cats. | Sandy Sprunt of Nat. Aud. Soc., said that officials of govt. in British Honduras

Journal

15 March 1972

Mexico D.F., Mexico

would like to have survey of jaguar population dynamics and distribution, so as to limit kill to sustained yield number. / Mr Isuttermuth, new president of WWF, told me that Mauricio Hornos had made a study and report of status of jaguars in Mexico, supported by WWF. / we returned to Hotel Israel. (Hornos at meeting very briefly).

16 March 1972. Took early plane to Los Angeles and San Francisco, arriving about 2 p.m.

Specimens: Nos. 4456 (16 Feb.) to 4481 (1 March), to MVZ.

catalog

4456-4481

?

March 18, 1888

1888

My dear Mr. Brewster
I have just received your letter of the 17th inst. and am
glad to hear from you. I am well and hope this
letter finds you the same. I have been very busy
lately with my work and have not had time to
write you more fully. I am, however, very
much interested in the work you are doing
and hope to hear from you again soon.
I am, dear Mr. Brewster, very truly
yours,
Wm. Brewster

I have just received your letter of the 17th inst. and am
glad to hear from you. I am well and hope this
letter finds you the same. I have been very busy
lately with my work and have not had time to
write you more fully. I am, however, very
much interested in the work you are doing
and hope to hear from you again soon.
I am, dear Mr. Brewster, very truly
yours,
Wm. Brewster

CB Koford
1972

Felis onca

20 April 1972

Tucson, Arizona

Landell Cochran told me that in Nov. 1971 a boy shot a jaguar, near Nogales, with a shotgun. There was an investigation, but boy allowed to keep the hide. Dale Lee told me (21 Apr.) that he had served as a witness at hearing. P. of jaw only portion saved in museum, U. Arizona. / Old record of jaguars in Arizona in Lange, 1969, Trans. Kans. Acad. Sci.
21 April 1971.

Ft. Huachuca, Arizona

Interviewed Dale Lee, now with game mgmt. unit here. Do tall lean cowboy type, probably in mid 60s. One of 7 brothers, of which 3 survive (Clay bar ranch nr. Blue River). Dale a hunter all life. Hunted jaguars from Sonora to Argentina. Had read J. Siemels' "Tigres," but not Leopold's 1959 acct. Lee bro. participated in kill of 124 jaguars; Dale was pro for nearly all of these. General hunting - usually taken deer for two weeks. Call with drum from 11 p.m. on, mostly about 2 a.m. Both sexes answer and come, but many do not answer call. Some came to within a few yards of Dale (one in British Honduras to 10 steps). Can't tell sex and age by call; local hunters thought they could, but kill usually proved them wrong. If calling gets no response, take hour in big circle to find trail. Calling got poor response in Venezuela, Colombia. Also call w. saw horn to amplify; one at Momotombo (sp.?), Nicaragua, came to within 5 y of Dale in answer. Dale does not shoot at night with Photos - he had prints, but most lost - I saw many others in possession of Ferreira at San Ignacio. One showed 4 oc and 2 jaguar after Nayarit hunt. Marked and coat - In Mex

Felis onca

21 April 1972

Ft. Huachuca, Ariz.

rosettes smaller, and stop farther back on neck, than in S. Am.
In Mayrinit, ^{rosettes} spots especially close together. Ground color paler.
coast, darker in mts. (San Ignacio area). Dale has seen
black jaguars, tho a hunter on Guatemala - Costa Rica border
said he had taken several. Mayrinit swamps, - hunted from
to 1964, with no apparent decrease in jaguars. Hard to work
mostly went in Texan side (Parícut (sp.?) area). Visited
about 1970 and found jaguar sign in mangrove passages.
Pectera showed outboard boats used. Hunted "strangers" or
small mangrove islets in Laguna Agua Brava. Last pair
had 13 men who took 14 jaguars. Largest about 150 lb.
In mangroves, eat birds, turtles, catfish. At edge, take
some cattle. Early trips, more ocelots than jaguars. Then
price went up to 500-750 pesos. Many taken with set
traps. In 1964, more jaguars than ocelots. Water-jag.
water animal. Once Dale in lake in boat about 2 a.m. on
moonlight night and saw jaguar swimming close. (Later
found near camp. Dogs tracked it in morning; it tracked over
in circle. Dale figured cat had recrossed lake; hunted there and
got the cat.). Colombia - hunted Rio Cauca near Medellin
skin of one in Cochise game store a few miles toward Bisbee from San
Vito. Venezuela - first hunted about 1952. Took 2 near
Mantecal; 25 near Rio de Apure. Heaviest concentration ever
found. Jags. to 250 lbs. Llover w. jungle along river. D.
season. Cut passage through gallery forest for cars. One
day with 2 gramps 12 dogs each. No horses used. Night
calling had poor response. Jaguars killed cattle - many. U

Felis onca72, ¹ ~~que~~

21 April 1952

Ft. Huachuca,
Tucson, Arizona

attached from below, grabbing jaw and pulling down (different of Mexico attack). Took some of largest bulls. One day Dale had old gun; it failed and jaguar charged; client killed it with brushshot (Ferreira had photo animal). Cattle - usually killed biting base of skull, leaving + carnivorous. Jaguar kills ⁱⁿ and larger cattle than puma. / Chaco area of Bolivia, of Santa Cruz, poor hunting. But Yaporani, NW of Santa Cruz, rain forest, had many jaguars. / Home range - as said Lee. Perhaps fairly constant in Mexico, but not in S. America. Once Dale called and two males came together and fought. One of these later killed; it had deep fresh wound (Pumas in Arizona, apparently not exclusive ranges; occasionally two males fight.) / Reproduction - tend to be seasonal. In northern S. America, most born in N. spring. In big Venezuela hunt, some females pregnant, others had already had kits; about Feb. - March. Jaguar has 1 to 3 yrs perhaps usually 2. (D.L. had little kits on ocelots.) Sierra Madre, Mexico. - Rio Aris (?) in Nacozari, took several. Also two in from Alamos, and several from San Ignacia area. Dry country, but water in canyons. Hunted at Guiracaba, Sonora, in 1940's. Few jaguars but reported to a mule. Dale went and called at night, during which jag attached a group of mules. Dale tracked the cat with 9 hrs and cat holed up inside a cave, occasionally rushing out to attack dogs. Usually laid ears back and circled too before rushing at dogs. Dale watched. Finally tried to show cat in lower jaw to protest dogs (until client came up

Felis onca

21 April 1972

Ft. Huachuco, Arizona

Shot missed and cat looked dead, but revived and rested. Eventually cornered in pocket by tree, where Dale walked him w. rocks. When client arrived, Dale dared him to pull tail jaguar; client declined, but shot jaguar. Anecdotes - Fred Hall was once client of Ben Terken, who made him skin his own. Later hunted w. Lee (Ferreira also mentioned Hollander). Thor Dornel (sp?), now dead, Chicago publisher, made movie recordings, with help of Dale, and promised Dale copies, but never gave them. Ransel Fiat (sp?), client of H.I. got a 75 lb. jaguar - then Dale showed him photo of recon 150 lb. bull. / One of Parra's men trapped a jaguar, and suggested that Dale get Proch (sp?) to hunt it. In Br Honduras, J. Proch (sp?) buys jaguars in New Orleans and releases for client. Sign Tracks, vs. puma, is more round, tail rounder; pad more round, less triangular, and posterior crease shorter. Impossible to tell age of track, says Dale. Scratchings - jaguar does not scratch after urinating. (Pumas may scratch up pile of feces, w. front feet, near or on carcass.) No special sc of jaguar noted. / Like most hunters, Dale emphasized personal aspects of his chase, but he seemed a keen observer and accurate. We talked at least 4 hours, including see his slides and photo prints. He also had a jaguar-cat drum, which he had made of regular drumhead. Dale ~~was~~ ^{was} that he would like to take someone on another jaguar hunt in Mexico. He would be an excellent guide to visit former hunt sites.

1972

Journal—
South America, Cat Survey—25 May 1972.Berkeley to Panama

Drove from home to S.F. airport. Took 6pm flight to L.A. Then 8:30p.m. flight to Panama on Avianca. Landing at Mexico City. Few passengers.

26 May 1972. Arrived Tocumen 6:30a.m. Taxi to Izquierdo Memorial Lab in Bella Vista. Conferred with C. Mendez, O. Saura, M.D. Young (director), Carl Johnson, Pedro Salindo. / GML has had field camps all over Panama. Occasionally they have seen jaguars in Darien, high area near Colombian border. (in 2000 m.)

Recently a man was returning to camp carrying a bag of netted birds when he saw a jaguar by path. Man ^{whooped} ~~threw large birds at cat and then~~ to frighten it and it came at him. The man climbed tree and shouted for help. The jaguar stayed below at least 15 minutes, then slowly walked off when men came.

Animal apparently fearless in that remote area. This story mostly by

Pedro Salindo, who was with party. He also said that a friend had cattle ranch near El Real, Darien, and suffered much from jaguar predation. (said kill 4-5 head per week)

(said yrs. ago) near Pacora (15±)
Salindo related one story where a jaguar killed several cattle, or if he had gone crazy, another time a jaguar entered corral and killed many calves. Near Darien-Col. border, very wild still, and parties always

see jaguar tracks and small cat signs. Colombian drug stores

there, for up to \$80. / Charles Handley had one come into his tent in field; he shot at it w. shotgun. / Salindo told of seeing

one sitting on rock watching others in stream - nonchalant - when shot at, moved slowly away. / Once when hunting agouti at night,

saw a jaguar walk upstream in water. / An apparent jaguar came in racks had 4 peccary skulls near mouth.

Most droppings include hair of collared peccary (P.G.). Think peccary the chief natural food. / Dean & Near Chapo, a Darien

compound where dealer has caged animals for sale. Said to arrange jaguar hunts too. / Most Indians have .22 rifle

Journal

26 May 1972

Panama City, Panama

and quickly clean out spider monkeys. P.G. has seen w. one and two cubs (^{told,} 2 obs.). Think probably breed year around. Jaque becoming scarcer in Panama, but ocelot still common. / Soil at GMH interested in an Echinococcus? tapeworm - cysts in agouti, worms in jaque (worms small but numerous, about 1/4" below pylorus). / Ocelot - P.G. told of one seen taking brats from nest on several evenings in Darien. / E. Mendez told me that Pollin Baker had a collection of ocelot skulls sent from Ecuador. Also said: near Cerro Punta, Chiriqui, a jaque had killed several dogs. / E.M. says ocelots in mangroves on Atlantic side, probably near Portobelo and Bocas del Toro. Probably jaques in southwestern Azuero Peninsula - (see the old Aldrich + ? report). (N. Smith later said a black jaque reported in newspaper as taken there recently). E. Mendez knew of no black jaques for in Panama. Atlantic side of Veraguas probably also good for ocelot. In Cerro Azul-Pacora area, good forests to N. - jaque, ocelot, morgan. Morgan never rare in Panama; probably more arboreal than ocelot. / Best reserves forests in Darien, San Blas, Cerro Azul area, northern Veraguas. / ^(from El Llano, S. of Chepo) Habitat - highway to Mandrigo (San Blas) in construction. Highway thru Darien from Chepo in construction - finished in 10 yrs. ? A big hydroelectric project ^{dams} in Bayano area, E. of Chepo, will start filling in about 2 years and flood hundreds of square miles of jaque habitat. There is much deforestation + ^{clearing} ~~escape~~ for crops in Panama, but also much primitive forests left. Some large areas of Indian reservations, as in San Blas. Everywhere road entered, quick settlement and clearing, all agreed. Chiriqui region much developed for agriculture now. The only forest preserve is Cerro Campana, where boundaries and status fluctuate. / I visited Ricardo Gutierrez, director of Reservas Naturales,

v. 1, p. 6.
Koford
re jaque.

CBKofad
1972

3

Journal

26 May 1972.

Panama, R. P.

in ready quarters across from Hotel El Panama. He said about 50% of Panama still forested. He realized some effects Bayano project on wildlife and had arranged with an animal protective organization (Scott? operated recently near Cayenne?) to rescue animals displaced by water. (G.M.L. was going to make some animal surveys there and eventually have a certain island).

R.G. had a plan for big preserve in Darien near Colombia border (some law linked with after project), but not yet implemented. (N. Smith said that 500,000 hectares of Darien recently leased to Great Britain for development, presumably opening and grazing, with no stipulation about final condition of land). R.D. (asst. Towner in Africa to learn wildlife methods) was ^{earnest} ~~earnest~~ but probably ^{for} ~~had~~ little influence.

// G.M.L. - planning to keep monkeys in compound at ammos.

monkeys

dump near Rodman, several hundred acres. Dr M.D. Young much interested in my monkey experience. Also some thought of island colonies. G.M.L. had many capuchins, spider m., and squirrel m., marmosets, and night monkeys in cages for disease work. The lab enjoys good cooperation with both Panama and U.S. military - facilities for guest workers (^{Jerry} Bowdye (?), R. Baker student, has made 2-yr. study Proechimys).

C. Mendez says Myrmecophaga is in forests in Panama; diminishing; as often shot killed by men. ^{Sat. 27 May 1972} Visited Neal G. Smith at Smithsonian

center on Isagar Hospital road, just ^N ~~S~~ of MARU. He said there are ocelots in C.Z.; two leopards in the Rodman ammos. dump area, which is fenced.

(C. Mendez. Also seen near Sambova (to sapylbaras also now nr. Sambova). Nicholas Smythe has been working on agoutis + ^{parrots} ~~sapylbaras~~ in

B.C. Island, using automatic photo traps at terrier. The institute has expanded and includes Pacific + Atlantic marine stations, island on Pacific side beyond Ft. Amador. Good air conditioned offices at Balboa. Also seen greenhouse

C. Koford
1972

7.

Journal

27 May 1972.

Ancon
Balkas, Canal Zone

where many orchids growing and Rand has variety of Ardisia. They have several cars, fine organized library, herbarium. But have lost pipeline ~~area~~ in zone. Mayrivan now in Panama, tho I did not see him. No staff lives on B.C. Island, tho environmental project now under way there (weather + concrete). N.S. thought most Panamanians looked on forest as an enemy to be destroyed. He has been here several years, as has S. Rand. | We stayed night 26th at Pension America, 2 blocks from GMH, \$6 per night and clean. | Departed 5:15 on Braniff for Bogota. Went to Pension Alemana, Carrera 16 no. Calle 16, friendly & clean but in tough district. Some

rain at night and much noise of cars, people, roosters, bells.

28 May - Sunday. Orientation Museo Nacional, Museo del Oro.

29 May 1972. Mon

Bogota, Colombia

Went to Inderera office and talked w. director of N. Parks & Wildlife, S. Max Frankly V., (IUCN) whom Budowski had written. MF had evidently given no thought to the subject, did not remember receiving questionnaire. He said J. Hernandez was the man to see. MF said few jaguars taken Leticia area, most from Arauca, many actually taken in adjacent Venezuela, some from Chocó in W Colombia. | Peace Corps office next to MF, but no one there until about 11 a.m. Man in charge was Don Hunsaker. Pat Warner (P, formerly of Davis, Calif.) was off on a study of marmosets. There was a vertebrate lab, with skins & skulls, and alcoholic, at Cor. 19 # 35-15, in an old house. | Don said that a student had compiled hunting and export statistics from ICA data. There was a 250,000 h. preserve on the Orinoco, S. of Pto. Carrizosa, recently set up. Many Amazon mammals there, including Pteromys, Prionomys, Dasyprocta, Speothos. Condors have a preserve near Resto, in Andes of SW. Leticia area now flooded, poor for travel - plane once a week. Mike Tsab Tsab (sp. sp.?) has collecting zoo there and runs hunting trips (\$200 per day for cat hunts). Don fuzzy on game laws

Journal

28⁹ May 1972. (Mon.)

Bogotá, Colombia

for cats, which have not been abstracted completely. But giant otters, mt. tapirs, spectacled bear, & a few other species prohibited from hunting. Others, such as capybara, have seasons. Apparently there is a fee for repopulation, which hunters pay for taking certain game (at least in certain preserve areas). One law prohibited taking teguillas under 70 mm. Another (4 Feb. 1971) set up repopulation fees, \$600^{pesos} for smaller cats, \$1500^{p.} for jaguar. I arranged time w. Hernandez, but he was occupied all day. Talked with various PC people, none of whom helped much with cat information. At the Museo de Oro, in baroque of pre-Hispanic gold pieces I saw only one cat, though there were many alligator, frog, bird head, and similar motifs. At Museo Nacional, large anthropological display but again I saw no use of cats. Necklaces of gold often had parts shaped like cat claws or teeth, however. At the lab, I saw only one skin of jaguar, from Arauca region. But several of ocelot, all about 4' or more long (including head, not tail). Much variation in pelage. Several skins of giant otter, Pteronura.

Bogotá

30 May 1972. Tuesday. Went to Indema office. Don H. had dug up some notes. Anyone can buy a license (\$500.5. or less) to hunt all cats w/o season or restriction. Ocelot about 80% of trade; most skins reported raw (= dried?). Repopulation fees = \$75 paid by middleman - 1500 p./jaguar. Price jag. hide 1500-3000 ps. Ocelot - 400-600 p. value (other cats lumped). Within 20 yrs., jag. within 20-30 mi. of Bogotá. Rio Ariari, Putumayo, had produced black jaguar. Zoo at Medellin (Mr. Urraba?) now has black jaguar from that region. // Finally got to talk w. Jorge Hernandez ('Mano' or 'mono'). He indicated ^{abundant} range jaguar on map - eastern Amazon, west of Vaupés, E. Meta, southeast half Vichada, all Guaviare. Arauca, &

Journal

30 May 1972

Bogotá, Colombia.

north of R. Meta, not abundant. (N. part Vichada is savannah.) Also, E. foothills of Santander, lower Rio Magdalena valley (mostly in Bolívar - some mts. - much deforestation by colonists, for grazing lands) +, savannah area betw. R. Magd. + S. de Santa Marta, savannah area around Sucre (these savannahs also have decid. forests), selva of Córdoba at N. end Cordillera Occidental, middle coastal foothills to W. but populations low there (JH says many species but low numbers this region). Ocelots throughout Colombia generally. Mergay + tigrina absent from desert area of N. (Guajira) and adjacent regions. Melanistis forms from Macarena area, w. central Vaupés, + upper Putumayo. ^(?) Black skin, not considered valuable. ^{Jay} Altitude - 1968, a ♀ taken ^{at} ^{near} Finken (sp. ?), 2600m, north Cundinamarca. 1967 - 3200m - apparent pair killed sheep over period 3 months (bosque y páramo). Two months later, tracks about 20 km. north. Later, tracks about halfway between. Assumed all same pair. ^(Boyaca?), 2600m. 1910, N. of Bogotá, pair killed, mounted in Museo del Valle (Bogotá); probably destroyed since. | Hunt. Use "alla" or "calaboga" to call; by day, in on coast, savannah Bolívar, Vozey. llanos. Sometimes come w. dogs and kill w. lanza, driving at throat near clavicle, using detachable shaft (llanos). Often use "lechón" a small goat for bait, hunt at night w. light. Certain fish migrate upstream, jaguar feeds on - hunters come? ^{Special} ^{Specialist} "perron tigrino" used, imported. Nos. taken - official data partial as much contraband, many poorly preserved; some skinned w/o feet, others w/o ears. Some animals many cuterebra holes, which reduce price. Statistics may be 75% of actual take; probably 4-5000/yr. taken. Control - many brought in thru Leticia (a free port until last January), only perhaps 30% from Colombia. Control "nada" in B. + P., said JH. Useless to strengthen laws unless all 3 countries

J. Hernandez
info.

1972

Journal

30 May

Bogotá, Colombia

do it simultaneously and enforce them, said JH. Local police may be involved. smugglers in Arauca area. Ocelots - all Colombia esp. Guajira, desert (one over 900 m. hill). Acc. for 80% of small cats (lumped as tigrillo). Ocelot below 1400 m. Perhaps 10,000/yr. tigrillo taken. "Tigrillo peludo" = F. tigrina. Tigring about 50% value of sardalis. Up to 2800 m., on tree line. Some m. edge Bogotá. (above ocelot area). | Foods - wherever gp. white-bellied peccary, tiger near. (W-b. pecc. migrates N. on plains, E of Macarena, in gps. to 300, usually about 40. In dry season, descend in altitude. W-b. pecc. to 2000 m. Once JH saw 2 jaguars near herd; gp. attacked jaguar and completely destroyed it. Jags eat oily palm fruit of Jacaria polycarpa. Turtle plastron often shattered; presumably by jags. - how? once found gp. 10± carapaces (Chelonia carbonaria? ^{or some such turtle}). (JH thought eggs tortugas eaten by big teiid lizards, caracaras, racoons - little by jaguar.) Crab. jags eat magama, peccary, collar, attack tapir, possibly eat caracaras, perhaps small caiman (C. crocodilus). Ocelot eats more reptiles, rodents, birds. Jags. get capuchins & probably perhaps other monkeys. They fish with claws - JH has seen one fishing. At log jam, fish of Podocnemis (sp.?) on trunks; easy prey. Cattle - in old days put iron points on horn tips of bulls - when jaguar attacked, made O like Ovibos. | Skin ocelot brings 4-500p. for professional hunter. Jag. takes capybaras (common same area). // Kultur - mostly near Popayan & Pasto in SW, but up to 12 seen in Sierra Santa Marta not long ago. Some as low as 2000 m. One spec. taken in 1946 at Paramo de Tinapiá (sp.?). | Tuparro area - presume on Arevalo - Nav. Dec. dry; can drive there in about 21 hrs. | a large skull at Univ. Bogotá museum; from? | Sierra Macarena -

Journal

30
28 May 1972.

Boootá, Colombia

selva, tho some lower species missing; best place for jaguar study.
120 km. x 30 km area mts. | JH thinks jaguar have ranges
overlap, rather than exclusive. | "Manupora" type spotted animal
with long legs, big rosettes; "podencos" - dachshund-like - short
legs, long body, longer nose, smaller? | Isail, jag. & spotted
cats diminishing, through ^{both} hunting and deforestation. A
Leticia info from files + letters of D. Harshaw. 312' alt. 2000 mi. up
Amazon. 4°13'S., 60°-95°F. 5000 hab. Dry - Aug. → Oct. Mike Traliche
has animal + tourist co. Plan 11 - hunt, his jaguar - jaguar, tigrillo,
etc. - min. 7 days. - 1 pers. \$60/day (2, \$40 ea.) + \$4 food. Shotgun
\$2/day + ammo. Plan 16 - big game hunt - Putumayo R. + trib. Coteche
"special" area - jag., ocelot, etc. Min. 7 days. \$200/day. For 2, \$125/day.
Brother George in Bogotá. Staff of 70 men. 4 1/2 hrs. from B. via Arica
or Satena (stops ^{Vallavieja} Bogotá). High water + flooded now. Also "Cruce de
Diel" from Menaon, Iguiton. ~~Revolución Alemana~~ | "Decreto de obligación
de repoblación faunística" paid by dealer to Indena - Tigrillo 60p,
t. peludo 60, tigris 150 (ateler 80, Bufeo 200). | Bob Bailey, in 20's,
worked w. MT for 3 1/2 months; recently visited states + returned - now
trying to census monkeys on Santa Sofia, an island in river. Two
familiar people there, caged animals; others released (no previous monkeys
on island), so now 6000 or so. Barbara Harshaw (autho. - Cornell)
bringing some girls (?) June - Aug to census monkeys? and study.
Don H. will orient them in Bogotá. Good luck! | We took 1730 plane
(Aerocordor) to Cali. Stayed at Hotel "La Merced." Cali, Colombia
31 May 1972. Walked up to Museo, nr. river, av. 2^a W., 7-10. Vexed
collection. A mounted F. pardalis taken nr. Cali, 1955. Mtd. Mayag, 1949,
Rio Aguadeno, Buenaventura, Cali. Valle. Two smaller mounted cats, like

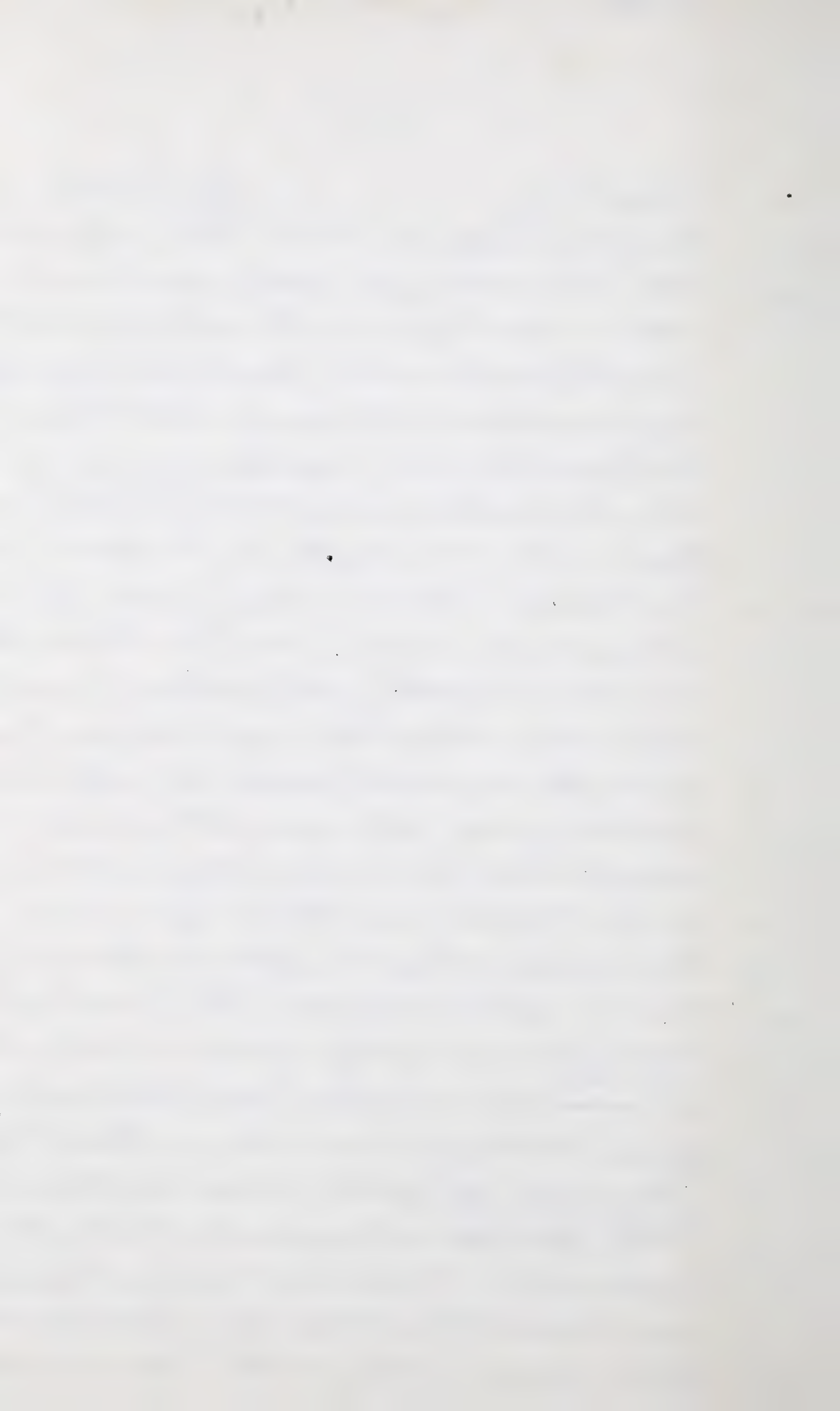
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Journal
Jaguas

31 May 1972

Cali, Colombia

^{labeled}
 tiny jaguars, F. pardusoides (Lehmann said from higher levels), Cauca Valley. A large ♂ ad. jaguar skull from San Marcos, Bolívar (skull 2 m 90 cm. long, wt. 300 lbs, said CL). Good collection of mounted birds and mammals. Several Pudu mephistopheles (also a partial skull with 3 horns in velvet). Lehmann had ^{live} two Tremarctos, about 3 Mazama, on grounds. One Mazama (American) had horns in velvet; ^{took photo.} CL said Mazama sheds antlers annually here. / a ♀ screamer (Chauna - Caribbean sp.) had nest w. 2 eggs in pen. a few other birds, mammals, savanans alive. / Carlos Lehmann, Director, said specimens of coastal jaguar (mangrove and rising foothills) different from inland, at least S. of Rio San Juan. Coast form had smaller compact spots, leopard-like, rather than rosettes. Distribution jaguar: Córdoba, Sucre, Bolívar, now few or forest destroyed. Recently, tourist dept. invited grange to hunt jaguars in lower Magdalena area. After 10 days, no success, so tourist department bought a captive and released it, to be shot. Their deed reported in newspapers. / Some friends, ranchers, in Caqueta, had dropped ranching and turned to hunting alligators, ^{giant otter,} and jaguars for commercially. Varies - relatively many black jaguars (= pantus negra). Occur to 1000 m. in Cord. La Macarena. ^{upper} Cauca valley, last one killed 1928 near Uribe (El Isuscito ranch). ^{Formerly, Cali on to N.} ~~Formerly~~ jaguars from On Veragueta side of Cord. Oriental, formerly jaguars (now?). Macarena - selva to 2000 m; still good jaguar pop. Arauca, Boyaca, E. Meta, Veichoda - savannah, gallery forest - good jag. hunting areas still. (Guaviare R. - savannah to N., selva to S. / There is + has been much commercial hunt.



Journal

31 May 1972

Cali, Colombia

ing. / F. pardalis rare; 1600 m. to 2000 m. / Leticia area - closed in Jan. as free port, but since, Brazilian army stopped boat with 50,000 skins. / Skins - a warehouse in Cali had thousands of illegal skins, which were confiscated. But the operator secured a release from Induena (in early days Induena). Most animal exporters are foreigners, working w/o permit. Several years ago at Barranquilla, dealer was signing own release papers, no actual inspection or quarantine. A WWF(?) spy, woman, found similar condition in Leticia. Dealer wants to ship w/o delay, or animals die. (Some products smuggled into Venezuela - cattle, mostly - or can sell for higher price and for dollars rather than Colombian pesos.) Capybara meat smuggled to Venezuela. Animal skins smuggled from Venezuela into Colombia, where sales legal. / Induena - in first 2 yrs., exports of animals & skins brought more income than lumber products. Now much better. / F. tigris above margin in altitude; more arboreal too. / Ocelot food - called "tigillo gallinero"; small food. Hunt - dogs, some spear, .22 rifle. Military runs a Col. shooters association, which opposes hunting restrictions. Army, police, of little help in game law enforcement - mostly enforced by Induena (except by CBS (?) in its area; a sort of TVA). Many yrs. ago, Ch given agouti-cry whistle by Induena, & warned ~~not to use it~~ ^{to expect foguero} if used it; he did & jog. came. Cattle - jogr. turn to when native foods depleted, Ch threaten also, depredation when cattle put into jogr. area. / Licence 200 p./yr. for sportsmen, Colombian or not alien. Squatter can get sustaining licence (sostenimiento) for less. Commercial

Journal

31 May 1972.

Cali, Colombia.

hunter needs no license, but pays on what he sells. / Kultur - mostly Rio Pasto (Mc Gaben met), Cinnarron, & Guaitana, which enter from ³ E. into Rio Jazanambu (other name?). Rio Pasto - N. of Pasto airstrip. A highway planned to run through this area, between R. Pasto & Cinnarron, which Ch wanted as preserve. Lt Mc Gaben ^{identified} ~~saw~~ up to 11 condors in region; observed nest at about 1 mile across a canyon. Condors also in Nat'l Park of Puracé, E. of Popayán. This park includes headwaters of Amazon, Cauca, & coastal river (Estrella de Colombia). ^{Seven volcanic} ~~7~~ craters here. Ch thinks condor nests about every 4 yrs. Has man put out bait to help count in Puracé? area). In general, Ch ^{thinks} ~~more~~ more habitat destruction in N. savannas of Colombia than J. Hernandez does.

1 June 1972. Thurs. No word from Lehmann by 9:30, and couldn't reach by telephone, so we took Velotax bus to Bogotá, a ride of nearly 12 hours via Uribé, Armenia. In lower country much cotton and sugar cane. Ascending mountains, patches of humid forest, and erosion gullies frequent. Arrived about 10 p.m. Stayed at Res. Alemans.

2 June Fri. Went to Indivena office and talked w. Hunscher & others. Received list of teguillo export for 1970 (about 24,000) and 1971 (13,000), but none yet for jaguar, nor questionnaire answers. One Peace Corps man said he recently saw a few skins at Acapulco, northern Tanga, for 20-30 pesos. Peace Corps will continue to gather cat information for us. / We visited young mammalogist (U. Michigan) Ernesto Barriga B. at the Univ. Bogotá. He had lots of space in new building, but little help. He said that railroad from Puerto Berrio to Santa Marta went along lower Magdalena plain through good jaguar country.

Journal

2 June 1972

Bogotá, Colombia

He thought still fair jaguar population in narrow part of Bolívar, around Mompox (monkeys too). Also, in northern N. de Santander, Tibu to Rio Oro. A petrol co. had developed site there, in fine forest, but abandoned (malaria). Aracua - west central, formerly many jaguars. About 15 yrs. ago he bought 2 skins for about 20 p. Baroja said that skins were smuggled into Aracua and flown to Leticia, a free port until recently. Also flown there from Barranquilla. / We took colectivo for Villavicencio, about 2:30 p.m. Road worked out at edges, water high, & water too high for passage about 40 km. before V. so we went rest of way by bus. Some still steep hillside covered with high wet forest, but most areas cleared and some burned. Villav. a fair sized town with heavy truck traffic. We arrived about 6 p.m. and went to Instituto "Roberto Franco," several blocks S. of town center. We found Dr. Federico Medem, germanic looking, heavy build. He had been in Colombia about 26 yrs, mostly at Villavicencio. The lab there now about dead, except for M., whose main interest is crocodilians. (He has done paper on herpetofauna of Colombia, however.) (A jaguar skull at Univ. Bogotá was labeled F. Medem, Rio Suayobers, 7 Feb. 1959. 7155. Measured 255 mm. long.) This animal was old and heavily infested w. dermatobia, said M. It had attacked a man cleaning fish in a canoe at shore, but had not killed him. F.M. said that jag. skins brought 2000 - 2500 p. in 1968. Everyone hunts, many quitting other jobs to do so. Mostly shotguns & .22 rifles. One can get guns but need salvoconducto, license, various papers, & has to be renewed (every yr?). F.M. had a skin & skull of jaguar - Heda "El Juncal," Bolívar. 071.83 m. Nov. 18/64. Skull 229.5 mm long. Not full

F. Medem

Journal

2 June 1972

Villavicencio, Colombia

gravel. / V. lies at ft. of mountain, where plains to east start. This is lab where Marston Bates worked on mosquitoes. / FM said many colonists to east. The most undeveloped remaining area in the south, southern $\frac{1}{2}$ Coguata ^{to} Putumayo river. / FM said some very pale colored jaguars on the "mereta", redder in dense forests. Formerly very abundant in northern coastal region (not actually on coast). / F.M. had 3 books by G. Ruchel-Dalmatoff, anthropologist of Bogota, mostly about Indians of Vaupes. Many refs. to jaguars - shown in stone rock paintings. / FM said he saw an ocelot eat a big equana, and one killed a small caecuran. He had heard from Dr. ^{J.P.} Schulz (Surinam ^{Forest Service} game dept.) that a jaguar had killed several turtles and attacked Dermochelys on Bigisanti beach (turtle nest there). FM had been to Surinam recently & was much impressed with orderliness & good wildlife populations (including γ crocodiles). Little hunting there, & no exportation of hides. (Few people & roads in French Guiana, so much wildlife still, FM said). ^{BROKO FONDO} Brokopondy huge ^{new} lake about 30 miles long, displaced many animals. Ocelot now totally protected in Surinam, but jaguar considered game species (yet, FM says no guns in country?). Wildlife legisl. & enforcement under Min. Agriculture, Animal Husbandry & Fisheries. / FM said jaguar often follows a man, who finds its tracks when doubling back. Once one closely followed man who had a dog, a favored prey of jaguar. Cat not afraid of dogs; kills them, FM said. About 1957-8, lower Cauca, many jaguars. 2-3 answered at once when called (into an earthen pot). Big cattle

Surinam

Dr. Gerardo Reichel-Dolmatoff, Bogotá
Amazonas Cosmos (Tukano Indians)
Univ. Chicago Press. 1971. Jaguar refs.

Preparing book on jaguar symbolism, etc.

also:

1968. De sand. *by* Simbolismo d
los Indios Tukano de Vaupes. Jag. refs.
Univ. de los Andes, Dept. Anthropology
(R-D has since left Univ.)

1965. Colombia.

London: Thames + Hudson.
Jag. refs.

Surinam

Dr JP Schulz, S. Forest S, Paramaribo
authored booklet: Nature Pres. in Surinam.

1971. Stichting Natuurbehaud, Suriname
(STINASU), Paramaribo.

Journal

2 June 1972

Villavicencio, Colombia

ranch. | Roar especially in mating season, Jan-Feb. near coast. They call back and forth in the mangroves. | In Mucuna area, many colonists now. Many peccaries there - colored usually 4-6, occas. 11, but white-lepped more and has seasonal moustaches; prominent fayed trails. Once FM was near herd of sleeping peccaries when a jaguar roared nearly as if to scatter them, but peccaries did not scatter. Certain palm ^{fruits} are good agouti foods; jaguars come to these. | Weather - FM says irregular dry season since 1967. Usually Feb. best for travel in lowlands to E. We slept in the old lab.

3 June 1972. ^{Sat.} ~~Err~~ we took 0730 bus (Bolivariano) for ^{Bogota} ~~Caracas~~. Many trucks coming, and road difficult from rain, so slow. Arrived 11:15.

Our plane flight had departed early, so we went to air airport and got on Air France flight to ^{Caracas} ~~Caracas~~, arriving about 6:40 (1 hr time ch.) p.m. Into Caracas and took bus in Nuevo Circo area for ^{Maracay} ~~Caracas~~, over 100 km. to W.

Then took taxi (30 b's) about 20 km. on Occumare road to Rancho Grande, in H. Pittier Natl Park. There met Dr. Medina, who gave us a room on top floor. (Charles ^{T. Collins} ~~Collins~~ (sp. ?) of ^{Calif.} Long Beach State Coll. is here, working on martens & swifts. Paul Schwarz is here much of time. J. Ogarti lives in Maracay but works ~~here~~ here. Medina and some others live here - Medina has been here 15 yrs.). From big balcony, good view of Maracay & parts of bay. We arrived about 11 p.m.

Rancho Grande, Venezuela

4 June 1972 Sunday. Wildlife museum of mounted specimens on lower floor. Cooking here is "every man for self." A restaurant 1/2 mile toward Maracay. We walked up path through forest 1/2 mile to spring. Heard red howlers in distance (a student said to be studying sp. ^{Neville} in).

Book - many jaguar refs.
(In German)

Zwettler Codex 420 des.

P. Florian Paucke S.J.

Jesuitenmission in Paraguay 1748-69.

2 vols. Otto Becken-Donnen, Gustav Otruba.

Wilhelm Braumüller, Wien 1x

1939 (v.1), 1966 (2). Many original illus.

about Paraguay.

Journal

4 June 1972.Rancho Grande, Venezuela.

llanos area). Parrots, toucans, oropendolas, close around buildings. Oropendola building nest. Nestlings in martin nest boxes. W-throated swifts off balcony. Warm & nearly clear in morning; foggy later; then heavy rain showers. Much traffic on road - people cooling off in mts. or going to beach. / Talked with Paul Schwartz, who has been recording bird sounds here the last few years. He knows little of jaguars, though he had occasionally seen one fleetingly. He thought large var. hunted, and said that a recent confiscation included about 13,000 ocelot skins. He thought cattle depredation occurred, but minor compared to handling losses. Considerable burning on llanos, to make grass grow early. Rancho Grande

5 June 1972. Mon. Station under Min. Agric. & Cria, Div. Recursos Nat.

Renovables. In Venezuela, 7 national parks (H. Pittier, 90,000 h., is here), 7 forest reserves, 3 nat'l monuments (Alejandro Humboldt barquisimeto cave). / Met José Luis, a preparator and helper here. He said rainy & flooded in llanos now. Jaguars abundant in NW Amazonas. Much hunting in Apure on ranches, but still jaguars there. / Juhani Ojasti here several years; worked on ^{big} turtles, copy-barar. Agreed now flooded in llanos, remote roads impassable. He said ^{state of} Amazonas and adjacent Bolívar is wet forest, few inhabitants, mostly Indians, primitive wildlife conditions. Northern Bolívar, more people - cattle, gold, diamonds. Still much hunting Apure. Once someone asked Rodriguez (Univ. Central) how many jaguars he killed; he said, w. brother, 70 in 2 months (years ago). Also saw jaguars in Lara, Anzoátegui, said J. O. He thinks they hang on fairly well even when land given to grazing. Fair var. ocelots in delta of Orinoco. Jaguars on ranch of friend,

1972

Journal

5 June

Rancho "El Progreso" ^{lowenii} Said to be 4 jag. there.
 die AA Fries (German), 10 km. S. of Bugual, N. Apure. / Estado Apure -
 hunt to remove jaguar + predators first - later, for sport and
 skins. Many less than formerly. Amazonian - probably stable
 population. Burning of llanos may harm jaguar little, as they
 are in forest along rivers. Fire makes temporary improvement
 for deer, capybara, other prey. Hunting - probably use dogs.
 Call in jag. Probably little night hunting. Jag. was a game
 animal with season in 1970; now ^{Legal} completely protected by law. (Puma
 can be hunted w. special license.). Skins smuggled to Colombia
 via Puerto Carreño and Arauca, for sale. Commerce in skins
 prohibited before 1970. Guns - only shotguns allowed, w. 1 or 2
 lbs. Gun permit + hunt license (annual). Ordinary license
 20 B, special (big game), 10 - 50 B. Parke - H. Patton has some
 ocelots, margays (specimens in collection). Also in Insatopos
 N.P. (N. of Attagroia, E. of Maracay). Canaima N.P. about 1 million
 hectares; many tourists go there. Zoo "Los Delicias," Dr. Rialva,
 Maracay, has jaguar. Mondolfi has runt (?) ocelot pup, perhaps
 in El Farol. / Commercial hunters - come from Colombia. Put
 snare near bait (nylon cord through pipe), J.O. has heard. Also
 gun traps, w. string to trigger, sometimes used. / In Apure,
 some ranches protect game - deer, capybara abundant - and owners
 tolerate tigers. / There is an association of sport hunters - these
 after object to Dir. Nat. Resources proposals + measures in
 newspapers, criticize (but not dominated by military). / Jaguar
 skins - "mariposa" w. rosettes, "serrano" w. compact spots. / In
 collection, only one ^{adult} [?] hide (+ skull), from Bolivia. Hide + skull of juv.,
 20 lb or 7, 31 July, from Bolivia (2 mos. old?). / Confiscated seal

CBKoford
1972

16

Journal

⁵
June 1972 Monday
(?)

Rancho Grande, Venezuela

thousand skins, which may eventually sell. / Museum had 2 subsp. of *F. pardalis*, one mainly Bolivian, other in ^{north} north. One *F. tigris* from Bolivian. Margays from Rancho Grande. / The division hopes (but private lands, mostly) to make a large reserve in SW Guareis, east of San Fernando. / JO mentioned trip up river to W. from Puerto Carreño, but saw no jaguars. In trip to Apure, Bolivian, see one or two at best, said José Luis. / Tomás Blohm, Caracas conservationist, has ranch in ^{far} west central Guareis, near Corozo Pando - protection, but not jaguar country. Food - JO said take capybara. Said to pull plecton aff turtle & eat. Said that ~~have~~ some say eat eggs turtle. So far, no request to kill jaguar because of cattle depredation. / In general, JO had little experience w. cats, tho he is very earnest & helpful. He said only two game officials (workers?) in country, trying to get more. Army branch guards roads in some places, like H. Pittier, & can apprehend hunters. JO thought have range 10-20 km diameter. / ~~Born~~ Charlie Collins of Cal. State, Long Beach, here working

5 June 1972 Talked w. swifts & martens. / Borrowed 20 snap traps from Ojasti and set them along lower part of trail from Portachuelo to Periquito (near). Took a lizard from branchiad along trail, a frog from path (specs.). Tore apart or sorted through many branchiads, but found no salamanders. No rain eve.

6 June 1972. The 20 traps held 1 *Heteromys*, 1 *Oryzomys*. Both at base trees in shady forest near ridge. Also picked up large *Dytiscus* beetle by light last eve. / The museum here has 3 *Bolitoglossa* salamanders, 2 taken 1961 are in regular collection, one (now white from fading) in public display museum - many mounted birds & mammals there too, & visitors allowed weekends. I found none

specs.

Journal

6 June 1972.

Rancho Grande, Veracruz

During day, men cleared many branchroads from tree near building, & cut them up looking for vertebrates. They took several frogs, including some w. eggs on back. I talked w. Gonzalo Medina about jaguars. He had been here 15 years, his father a hunter. He said that National Guard was supposed to help w. game law enforcement, but actually did little. He said they had no statistics on numbers of leopards, or nos. of skins confiscated. They had confiscated (scattered localities) several jaguar skins, and hundreds of ocelot skins from dealers. He said cattlemen kill jaguars and want to kill them all. Night hunting illegal and seldom practiced. In Cdo. Balcan, often call w. calabaza. He said some still killed w. lance. Distribution - added that jags. in humid evergreen low forest of northern Cdo. Yucatán, & preserve planned for there near coast for jaguars. He said many ocelots in ^{Oaxaca} delta region. Perhaps no jaguars in Amozotegui (differs w. Ojasti). Jag. & ocelot in Serranía de Perijá, but bad Indians there. A forest preserve in S.W. Barinas (actually 2) had jaguars; legally no hunting in these, but actually much poaching. Hunters from Colombia come to Barinas. Lowlands of NE Bolívar had jaguar - hoped for preserve there (altaplavine de Nueva or Imataca area). / Medina showed us small book on hunting tigers in V. (by Rene Isidoro Diaz). Then a file of Coza y Pesca magazine, which included dozens of articles on jaguar hunting, w. much repetition of certain names such as Römer R. Römer, G. Velutini, R. Isidoro Diaz, & some ^{about} big jaguar hunts in Colombia, Argentina, Guatemala. Many photos of hunter and kill. Some hunts probably many years ago - year rarely mentioned. But some worthy observations about behavior. I listed many refs. & some comments on separate sheet. Last two issues

Journal

6 June 1972

Rancho Grande, Venezuela

of Caza y Pesca have jaguar titles. I spent most of day skinning the artedler, in Spanish. There is a Federación Venezolana de Caza y Conservación (FEUECA). Also a hunter club. / Rain eve.

7 June 1972. J. Ojasti drove us ^{To Caracas} to Caracas, and to the office of Buenos Aires, Dr. Mondolfi (Cornell grad.). He arrived about 10 a.m. & was cordial, active - telephoned hunters, others. On phone & talked w. Federico de Fries (Q. Angelica, Av. Principal, Altamira; 33-4600), owner of ranch "El Porvenir" about 10 km. S. of Bruzual, ^(Lancaster Co. - "Uragua") Apure, & adjacent to lands of Cia. Inglesa. De F. spoke excellent English. Said had ranch 18 yrs. Always 6-8 jaguars, not increase. In mating season, wander far outside boundaries. Ranch 46,000 h.; jag. occupy about 50,000 h. Adj. ranch given bounty for jag. Poachers common. Lately have seen only 3-4; can go 3 wks. w/o seeing one. He thinks doomed in Venez. Their cubs born over 4-5 mo. period, near start dry season (Dec.). Best dry condition April. Food mainly turtle, caimans, capybara - occasionally a calf. The jaguar area now flooded & poorly accessible. de Fries very clear and concise, his hato probably good area for field work. / Another protected area, Hato "La Trinidad", along Rio Arauca between Choriza and Mantecal in Apure. This is where Ojasti studied capybaras. Owner José Natalio Estrada. / Mondolfi marked many jaguar areas on maps. Tiroporo area ^w of Barinas now has agriculture & lumbering, tho a forest preserve. Calambuco hunt in SW Barinas region. Some jaguar SW of L. Maracaibo. In Edo. Guarico, S. - some thick forest w. jaguar (listw. ^(no caicara) Colubita (sp.?) and 60 mi. E?). Awangury area N. Maracay. Dr. Alambique (state?). Guatopo N.P., SE of Caracas - prob. a few jag.

Journal

7 June 1972.

Caracas, Venezuela.

Rio Mateyine (W. of Achaguas), another hunting area. Caño 70 Toc.
 Rio Suriza, SW. Barman. Caño Isuariteis (SW of Santa Catalina).
 Hato de la Cruz (SE Barman). In Edo. Apure, mouth of ^{R.} Arucas.
 La Urbana (N. Rio Orinoco). La Calzada (W. Apure). El Cerito
 (N. of Palmarito). E. of Caicara (Edo. Sucre). Most of these areas,
Mondolfi marked on maps. He had penciled notes, abstracted from
 his notebook. He said Lee Bros. hunted Caño Delgadito, Rio Suriza, &
 took ²⁷ ~~22~~ in 3 months (this apparently from Roman article in Cope of
 Per Peru, not Mondolfi notes) (perhaps much of distribution also from
 C. & P. / one hunter, Chui Sabalón, Hato Los Delicias (?), Rio
 Caragua. / area around Santa Maria de Capran, W. Apure. Parmana
 area, NE of Caicara, SE Sucre. N. of Suasualito (W. Apure). /
 Mondolfi says jaguars ~~decrease~~ ^{have de-} creased, mostly from commercial
 hunting for hides. High demand started only 7-8 yrs. ago. Says hunters
 even poisoned jaguars. Price about 1000 Bs. (4.35/\$1). Much
 poaching along rivers. Many fishermen too, who hunt. / Mondolfi
 favors burning of llanos to make ^{grass} food available to livestock, &
 thinks not harmful to jaguars. / M. says, it is said that adult
 male "padrete" controls & moves around in a large area, partly
 in relation to need availability water. Spends more time at 3-4 "paradores"
 Walker much, rests midday. Fights other males that come. In
 thick brush, gallery forests along rivers, swamps. Prefer edge of
 savannah, where go out to hunt, perhaps 100m. from cover. Cubs
 probably all seasons (1-3). When ♀ in heat, several males after her,
 & ♀ may fight. In breeding season, call more; also call much
 when weather changes. Puberty 2 yrs. in zoos. Some say when
 complete dentition. Territory of older is larger. May walk 40 km.

Journal

7 June 1972.

Caracas, Venezuela.

Bear litter in cave, often at side river. This info probably from articles or books. / M. killed one about ^{March 23,} 1950 ^{±?}, near Caracachi, Rio Caroni.

Near partly eaten calf. Dogs quickly picked up trail and cornered jaguar. 8 3/2 leg. 189 cm + 59 1/2 tail. Pecho 94, cuello 61, brazo 36, ralo 26. ♂ #663. He showed me skull. Has small posterior molar. / He also ~~showed me~~ ^{had water on me} skull from Caño Guarietis, taken

March 1969, by Dr. Pedro Gonzales Vera; 140 kilos, ^{tail 67} 260 tot. length. A museum skull, no. 712, ♂, from Caño Agua Verde, Edo. Guariño, April 18, 1945, taken by Paul Stempel. Large skull. // Foods reported -

capybara, peccary, 3 kinds turtles, caimans, iguana. Puma takes more deer. Calves, ocar. large cattle, pigs, dogs, eggs turtle. ^{more} has tough shell; jaguar removes meat w/o breaking shell. But open tortugas. / Strangely, M. did not know that for 2 years no permits to take jaguar had been issued. He said snare used by hunter from Colombia. / Mandolfi had notebook at home, & gave me info. from it. Jan. 16, 1963, ♀ had 3 almost

hatched fetuses, about ^{103 mm.} 25 mm. long. total length. 25 Feb. 1963, one fetus w. pelage, mother 68 legs. about 10 days before carnival (= 40 + 7 + 10 before Easter. yr. ?), one w. 2 emb., fully haired. / Romero Vega, at El Llanero betw. Apure and Suripá, late Feb. and early March 1952, 14-15 ♀♀; ^{one w.} 2 cubs about 8 mos., one w. 2 about 1 1/2 yrs., one w. 3 cubs. One w. 2 emb., one w. 2 emb., advanced. Was this Lee Brow. hunt? / We had steak lunch w. Mandolfi, Ojasti. In evening, visited Mandolfi at home. Tomás Blohm, been man in 40's, also came - strong conservationist. He had idea of putting jaguars on islands in lake S. of Caracas. Also interested in other preserves. He had ranch in Guariño about 8 mi. N. of Coego

Rep^{ro}.

Journal

7 June 1972.

Caracas, Venezuela

Pando, on highway 2 (Melader Melvin Neville has been studying red howlers there). In 1944, jaguar there - until 1956, then none. He said that in Feb. 1972, near Parmana, SE Sucre, in ^{mooride} ~~mooride~~ palm area, jaguar ^{said to have} killed 19 cattle in 4 weeks. He saw many tracks along watercourses there. Still jaguars S. of San Felipe, Yaracuy. (Blohm had various instances of seeing one closer to Caracas long ago.) Some say jags on peninsula of Lake Oranna [n. Pto. Cabello, Carabobo] Camatagua, S. of Caracas. In ~~Oranna~~ (sp.?) area, W. of Pto. Cabello, hope to make preserve of about 20,000 h. (ranch area about 76,000 h.) in coastal ^{swampy} ~~swamp~~ zone. Blohm said ocelots, Pseudonotus, on his ranch. (Bird watchers go there too). He said that at Parmana, island in Orinoco nr. Pto. Cabello ^{Carreño} (?), a jaguar (one?) came every night and ate turtles, about 3 km. from nearest mainland (assumes swim out & back). Jag. skin price 1000 B, ocelot 200¹³, now! In afternoon, Ojasti accompanied me to visit ^{Romero P.} ~~Roderick~~ ^{Romero}, jaguar hunter who had sent articles in Caza & Pesca. Romero was boss of a pharmaceutical firm. A big man, probably about 40. His hunting friend Hector - , from a bar, also came - but said little, as Romero talked much and enthusiastically about jaguars and hunting. They had plane, dogs, cars, assistants. (Actually ^M ~~Mondolfi~~ thought they had kind jag.) started hunting in Dec. They had taken ¹ ~~Hornoch~~ out, in winter. He had large jag. skull (about 285 length) mounted on desk, a big box with about 20 others (no numbers or labels, but most distinctive, as from ~~bullet~~ bullet holes). He claimed to be doing a big book on tiger hunting. He did have set of good 8x10 photo prints, largely of dead jaguars, + some in color (an 11x14 or larger on wall). They were ruffed that jag.

Journal

7 June 1972.

Caracas, Venezuela

hunting prohibited, saying that many problems to be solved w. specimens (one w. hollow canines, said to be more aquatic; some with small posterior tooth; pelt + behavioral diffs.). But they talked as if continuing to hunt as usual, starting December. He had much to say on every point, ready answers. He said jaguar occur all over Venezuela. Rely much on "corates" to call, imitating opposite sex. Probably never climb trees to feed, though do tree when dogs chase. Food - don't eat dogs, rarely cattle. They "siempre" open stomach. Wide variety of food, including birds, turtles, earth, cattle droppings, corydoras. Thinks they have two reproductive seasons, first mating about June when rains start (much roaring then - this is "invierno"), again about September. He thought births adjusted to take advantage of food conditions. Usually one cub w. ♀, the litter 1-3. Males have territories + fight off other males. If male killed, another moves in; if it killed, another. Some males range 50 km; may be at one end of range in summer, other in winter. (Hector agreed w. all this.) When ♂ killed, easy to find and kill ♀, especially as she calls much (only in mating season?). He thought 2-3 ♀♀/male nearer to Caracas, about 1:1 on distant llanos. Much of what he said was same as in C. & Partides, so not repeated here. (Mondolfi ~~thinks~~ thought R.R. not too reliable in ideas, perhaps exaggerating.). Rover said he + friends had killed over 100 jaguars. He agreed that jaguar decreasing and blamed habitat destruction primarily, plus poaching. He claimed to have data on localities, weights, repro. status, etc. for many animals.

Journal

7 June 1972.

Caracas, Venezuela.

Possibly he will finish his book and include these. He did not know who Ojasti was (from game div.), & latter seemed convinced that R. & pals were hunting illegally. R. casually invited me to go with them in "verano." He asked for reprints on cats. Very cordial and good humored. | Ojasti said hope for preserve later. Apure & Guericó rivers on plain, to demonstrate value protection. He had worked w. corybora mainly near La Trinidad, m. Rio Aragua. | We went to airport about midnight.

8 June 1972. Departed about 4 a.m. on Varig for Manaus, arriving about 0630. Only tops of clouds visible until last 15 min., over solid forest. Airport facilities poor. Bus to town. Finally stayed at tiny Hotel Manaus, about one block w. of cathedral. | Obtained some local info from Livreria Crista, near main plaza near waterfront. Visited FUNAI (Fond. Nat. for Indians) at 93 - Manaus, but none there spoke English or Spanish (S. Neves F. away for a week; R. Smith helper). ^{9 June} Visited shop Casa do Beija-flor, next to Hotel Novotel. Richard Melnyk (of Rochester, N.Y.) sells native crafts, canoes, blowguns, etc. He exports articles to U.S. too. He thought restrictions on skin trade had raised skin prices. Most Indians hunt as part of regular life and know only that animal skins can be sold. Cat tails, jaguar teeth, used in indian products. This store a good source of local info. Learned that INPA office in Manaus; went there (116 G. Moreira) and made appt. to see Director, Dr. Almeida Moreira. Later taken there, to new buildings about 6 Km. distant. He had 7 scientists. One from U. Fla. working on fish. Main interests seemed malaria. But less interest veget. or wildlife. They have 10000 h. preserve m. Km. 20 to N.; said formerly a jaguar there. They had some interest in survey of vertebrates

Journal

9 June 1972.

Manaus, Amazonas, Brazil.

of that preserve. He was cordial & showed me the grounds, which included about 1 acre enclosure w. small moat and birds therein (spornbill, scarlet ibis, ^{seriema} ~~seriema~~, others). He had friend from Mariscal who had collected bats here. He M. took yesterday from visit to station. Said I could stay at station if desired. He had good feeling for nature - hunt w/o dogs, many plants around bldgs, min. air conditioning, etc. In Manaus, near waterfront, an import office w. jaguar on sign; inside, a marajay skin on motorcycle seat (under plastic), but no quantity for sale. A tourist store, "dos Passaros" near cathedral, had skins marajays, small jaguar, many other mammals, for sale. Also gadgets of ocelot (?) tails. Sports store had array of guns including pistols, 2 dbl. shotguns, muzzle loaders, .22 rifles, & ammo. So guns ^{available} ~~are~~ (how easily?). Peace Corps. ^{"Marty"} many said guns common outside cities. Several records of bird recordings by Johan Dalgaard reach available here. Peace Corps ^{"Marty"} man recently spent 2 weeks on ranch 4 hrs. up river - said saw very little wildlife, occasional monkey. In one area, "carbonace" working and had cleared off the forest. Heavy erosion some sites. Dr. Machado had also deplored destruction of forests - and replanting of Cairn-san pine (also in Venezuela), eucalyptus!

10 June 1972. Saturday. Visited "Zoológico" at "guerra da selva" base of army in São Jorge, edge of Manaus. Fair collection of major native mammals, some turtles & large birds, including 2 jaguars. Very hard rain yesterday morning flooded the plaza central.

11 June 1972. To airport early & departed on Cruzeiro do Sul jet for Belém, leaving 0545. Flew near river, but mostly low clouds obscured, and

Zoology - CIGS - manau

Jaluti - Testudo

Jacaré - acu . C. nigra

" - teiga C. schweyer

M. barrigudo - Leptothrix

Macaco cuata - Ateles paniscus

Macaco prego - C.

carina - C. capuchinus?

Guandu = Caendou

Anta = tapir

Caixada -

peccary

Caitetu -

Onça pintada

Cachorro do mato - Speothos

Reddish brown - long thick neck, short legs, 4" tail -
somewhat weasel-like.

Cujibim - Crocid

Arara -

Saco = Tigriana?

Mutum - curassou

Seto maracaja - F. wiedii

Journal

11 June 1972. Sunday

To: Belém, Pará, Brazil

where mostly clear, steamy clouds over tributaries, ridges. Land has small undulations, not flat. Some patches of drier ground, perhaps a few feet 100 m. drier. (Cerrado?). Dps. tilled ground. But mostly bushes, trees, and water. Water isolated many riverbank houses. Plenty cover for large cats. Several aspect like mangrove coastal swamps of Mayaguez, with ragged edges wet areas, many isolated "strangers" or "islets". Probably hunting rather than lack cover limits jaguar pop. / Belém about 1/2 million. Many signs of past grandeur - fountains, lamp posts, tile-faced buildings. Some modern buildings. But many streets & walks in bad repair - something like Mayaguez w/o tourists. Intriguing waterfront-boats, shutters men, many open markets for blocks near waterfront. / We rode around in buses. Walked in Bosque Rodriguez Alves (saw 3 agoutis, tapir tracks), where 1903 structures, children's playground, some caged animals. Native trees to 100', and birds present - good for weekday bird-watching. / Belém has some breeze, much drier now than Manaus, but a hard evening shower.

12 June 1972. Mon. Visited DNPM/RADAM office, where a group making a radar survey across Brazil's northern half, starting in east, but now including much north of river & to Acre. Dr Paul Zinke (Berkeley, Forestry) had told me of project. Got most info from Ing. Evaristo Terezo, forester. About 75 vegetation types included on maps, made from surveys. Project under Min. Minas & Energia, Dept. Nat. de Produç. Min. Prod., RADAM. Work closely w. SEDAM, Natural Resource Dept. (Dra. Clara Pardo/ri, Belém). Compilation so far mainly Amapá and Pará. Plan to finish 1974 - may take much longer. Aim for land use maps. Forest types generally follow soil & geographic types. Decid. forests Marabá similar to Guianese area. Survey belt to about 10°S. So far, little work on ground done to segment

Journal

12 June 1972

Belém, Brazil

air surveys. Originally, field form had line for animals present, but rarely used. No one seemed interested in wildlife survey, at present. Teruya thought INPA not doing much, agrandizing director mostly. He suggested Curvona area, Forest Reserve S. of Santarém, as study area (permission from Dr. Clara P.). Information from this gp. will eventually be useful. Went to Museo Israelite. Small museum bld., about city block of grounds with trees + zoo animals - ~~poas~~ capybaras, tapirs, turtles, macaws, ~~f~~ jaguars, ocelot, marmoset, monkeys (spider - all black, not patterned, tail heavily bushy haired except tip 10" = A. parvulus?). English sign on 5' diam Cecilia (sucuarana) said: planted 1896, flowered 1932, fruit 1940. Talked w. Director, a historianist (fair English), Dr. da Cunha (herpetologist). Latter said one salamander about 5 cm. long here, on plants, low, in dactylis, not branchade; rather common near Belém. Fernando Novaes, ornithologist, absent, traveling. Season now fairly dry, they told me, & will be hot in July. They suggested Cay Chagas Inst. in Belém as source information. I decided to go on to Rio, to get proper letters introduction from Brazilian officials, so could stay at forest preserve, etc. Rained again after dark. A tourist store on Av. Vargas had a jaguar skin displayed in window (folded, or if tanned).

13 June 1972. Took 10 a.m. plane for Rio de Janeiro, about 4

hour flight. In Belém outskirts, large patches of ~~see~~ forest. Then cloudy for an hour or so. Then woods in canyon broken by reddish higher ground between, & less clouds. Then clear with ground barish, rare cultivation, bolubations, roads - red acid earth. Then more vegetation, some cultivated patches, and gradually more hilly as approached Rio, arriving about 2 p.m. Tried to telephone Fernando Dr. Pires at museum, & at home in Petropolis - not

maracaja - açu = *F. wiedii*?

suçuarana = puma (Belem)

Journal

13 June 1972.

Rio de Janeiro, Brazil.

at either. We took bus to downtown, then to Copacabana for a look. Then back to Praia Flamengo area to small hotel, near Park.

14 June 1972. Went to Museu Nacional and talked w. F. Pires, who made suggestions and

phone calls for us. Canvells away for 10 days; Stockholm conf. Jaqueira hunting & commerce prohibited since 1967, the enforcement poor. Xingu park might have deer &

jaguar, and Indians eat mostly monkeys & birds. British gp. (Mats Innes book) worked near Chavanteia, now reachable by rd. from Araguacá. Cattle in region

now. (Pires thinks jag. increase when cattle present.) Black jaguar from Xingu, southern Bahia, nr. Manaus (many dark four mammals nr. Manaus). / Ken

Steger has collected in Isolat (museum man who was with S. said person, and jag.). / Skin of 2 black jaguar, 1 jaguar ad., 2 subs, in collection in

Caceres. / At nearby fauna museum, talked w. ^{A. Al drighi} Sr. Aldryghi, preparator. 80 ± kg. (Researcher)

They had ♂ jaguar mounted, from Caceres area, shot w. 22 pistol, Oct. 10, 1957, start rainy season. There were 2 young ♂♂ w. a ♀. Had been

eating capybara & calf. Skin pale background; manipos to ears.

(Fernando said jag. killed dog 100 m from him in Xingu area, sev. yrs. ago.) / Mus. had a F. pardunoides, Rio Xingu, 6/9/1946. / I was

surprised at large size & long legs of Chrysocyon (Lobo guará) - said not to attack livestock; eats fruit & rodents. / In cage, Aldryghi had 2

golden marmosets w. 2 1/2 grown young. Two other in adjacent

cage (Leontid. rosalia). / After much talk w. various at museum, agreed

that pantanal in Mats Innes best area for jaguar. In area

covered by Corumbá, Cofim, Rondonópolis, Caceres (S. Guiné county).

There are now roads into undevol. areas, such as thru Rondonia (malaria zone).

/ Belém. Ing. at HNDNPM said about 15000 people from Ceará settled in "sgravilar" in north, about 10 of them. / About 60% of Brazil said to be forested, about 56% in Amazonia.

Onça vermelho = *F. concolor*
Susuarama

Piramboia = *Lepidosiren* (lungfish)

Jacuatirico = *F. pardalis* (in case).

Cobia = agouti.

Lobo guarã - *Chrysocyon*

Gato pintado do mato = *F. tigrina*

Journal

14 June 1972

Rio de Janeiro, Brazil.

Worked w. Perin. Looked at exhibits & zoo. Returned to Praia Fluminense.

15 June 1972. Fr. Thurs. Went to DPDNPM-RADAM office in Urua,

and talked w. Dr. ^{Roesse (sp?)} about radar Amazon survey, but received no additional information (Zinke expected soon). Then went to Museu Nacional (Tringem bus gave us the way) and lunched and talked w. Perin. He made phone calls for me. Then to Jardim Botânico, where tried to locate Dr. Vanderbilt, unavailable. The garden is 10 or + acres, I think, and considerable botanical research stuff connected to it, and large library. Much forest on hills above, toward Tijuca (?). Returned to hotel.

16 June 1972. Friday Spent most of day on reports & letters. In evening

to bus station (Rodoviária), where took bus to Vitória. Station large & lively, w. buses to Brasília, Belém, Mato Grosso, & many distant parts.

17 June 1972. Arrived Vitória about 0800. For an hour before, green grass

hills cropped short, cattle, granite outcrops, and patches humid forest on some slopes. Vitória a seaport, w. large vessels. Bustling mod. town. Waited for bus to Sta. Teresa. Home has granite hills around town, and patches trees on slopes. Took bus 1300 for Santa Fria Teresa, about 2000' up. Patches forest on hills, green. Museum "Mello Leitão" area a few blocks from center of town.

About 15 acres, gardens, w. scattered buildings, cages. Ruschi lived on plot, w. wife, daughter. Two Peace Corps boys, Paulo Abreu & Erik Lygaa, lived adjacent; worked on mammals, plants, & helped Ruschi (57 yrs.). Some small monkeys in cages, including at least 3 Leontideus chrysomelas, and some tinamous (solitaria), curassows, toucans, others. But mostly hummingbirds - outdoor cages, indoors in one building, various sizes, and about 20 species coming to feeders on porch of house. We were put up in house donated by Crawford Greenwalt, 2 beds, kitchen, modern.

Jaguars - Ruschi said one in reserve "Nova Lombardia," 7000 ha, near Santa Teresa (owned by his museum + Museu Nacional). Also F. pardalis & wislizeni present.

Journal

17 June 1972. Sat.

Santa Teresa, Espírito Santo, Brazil

another reserve, "Socoratapia" (sp?), north of Rio Doce near coast, 30,000 ha, created 1941, ^{also has ocelots.} had many jaguars in late 1950's, still same. Further N., nr. border, reserve "Corrego do Veados" had many ocelots (5000 ha. Area along Bahia - C.D. border, trying to get for preserve, also has jaguars - and forests of S. Bahia, especially around Itamaraju + Mts. Passoa. There are other preserves in C.E. State, including Ilha de Comboios where Dermochelys haul out (over a ton, says A.R.), a marine biological station near Santa Cruz (envir. in Rio sendo started); Pedra Azul, 2500 ha., west of Vitória; Forno Grande, 5000 ha., w. of Castelo do S., and Rio Bandeira area (2098 m.) of Nat. Park of Caparaó. Larger ones have good protection. Most have living facilities. / Ruschi has traveled widely in Brazil, has influential friends & family. He highly recommended fazenda of Dr. Verdier in Serra da Bodoquena, west of Miranda in pantanal of Mato Grosso. Rui Curry-Lindahl visited there about 4 yrs. ago. From plane, they saw jaguars carry two cubs to cover, one after other. Eng. Fernando ^{Adriano} ^{regular} of São Paulo is part owner, & friend of A.R. Said to have 19 hunters on ranch, communicate by radio, special dogs, 2 planes. Ruschi gave me letter introduction. / Ruschi had published about 90 papers, nearly all in his own bulletin. Some on orchids, bats, monkeys, conservation, faunal lists, but mostly on hummingbird biology (largely from obs. & capture). He sends hundreds of eggs to Charles Sibley for egg-white protein analysis. Visited annually by C. Greenewalt. / One paper tells of area where armadillo hunted out, & pops. given in area / mammal. He said many Myioma in Chabieré (sp.?) area, Bahia border, and that did not shed antlers. Told many fascinating facts about displays of various hummingbirds. / He told him of Fernando Arty C., & A.R. were enthusiastic about getting him to do field work that he could no longer do, especially in Canada & high country. Papayanto (? sp.), Ecuador, said to have 40 sp. hummers. / R. said many

check w.
C.E.T.

Journal

18 June 1972.

Santa Teresa, F.F. Santos, Brazil.

ocelots, margays, in some nearby preserves. He hoped to catch local tiger alive, for transport elsewhere. / Once Rurski visited ranch in Mato Grosso where had to travel by boat. Oscar saw jaguar swimming the river, about 80 m. across. / A.R. related that in 1967, commerce jag. skins prohibited. But English ^{Co.} said they had 2 million skins stored. They were given until 1970 date to sell - but A.R. says actually used time to intensify trade & secure skins. Eventually confiscated 800,000 skins, 96,000 of sacuri (= anaconda). Info. published, IBDEF, Dr. C. de Carvalho involved and knows details. / In 1936, a jaguar near Sta. Teresa. A.R. saw it crossing road on several occasions. Once when camping he heard scraping sounds in night. In morning, found it ^{had been} ~~was~~ a jaguar scraping turtle shell. /

Rio de Janeiro, Brazil

19 June 1972. Arrived early morning on bus. Walked to Museu Nacional. Met w. Fernando P. Spent most of day typing progress report, letters. To hotel in Catete.

20 June 1972. To Rodovia sta. & took bus for São Paulo, 6 hr. ride. Mostly open hilly country along route, w. coarse bunch grasses, little cultivation, few rocks, few cattle, shallow red soil, brown grass - like some areas Calif. in coast range. Occasional planted areas of eucalyptus. Many fields had ant or Termite mounds, abrupt, about 2' high, spaced fairly evenly. / Bus station similar to Rio, perhaps larger; by R.R. station. We walked toward C. Universitária & stayed hotel.

São Paulo, Brazil

21 June 1972. We took bus to C. Univ., Inst. of Biocimica, and found office of Dr. P. Nogueira - Neto. He at home, but asst. Vera showed us colonies of *Melospiza* less, specialty of D.N. He invited us to his home for lunch, & we talked there. Good library of recent natural history books in den. He gave us copy of ^{his} book about 2 visits to U.S. He interested in livestock & in introducing eland to Brazil - thinks exotic wild-life only way to justify saving savannas. He had said eland on ranch, 2 hrs. distant. He had little personal knowledge jaguars, but was leader of man ions -

Journal

21 June 1972.

São Paulo, Brazil

reservation group. He said rat's plan for Amazon area. New park, 2 mos. ago, in Mato Grosso, = Caracará, nr. Paraguará River. He thinks most jaguars in Amazon. Pessimistic about wildlife future - parks needed. Thinks conservation making progress. Govt. wants more people ^{and} oppose birth control. Charles Michener has worked here w. N.N. Paulo said many ^{scientists} ~~scientists~~ have come to Brazil to work and have never reported results, so some had feelings. He had cold, had just ended classes, so not at his best. About 40 yrs., serious. Nice house + grounds; apparently well known old family. N.N. sent took us for short visit to Inst. Butantan, where ^{poison} snake serum made. Outdoor pits w. many snakes, mixed; schoolchildren and others viewing them. Near university. N.N. sent car w. us to Museu Paulista, university nat. history museum, Dr. Vanzolini director. He was unknown herpetologist, talkative, generous w. time. Had worked w. Williams at Harvard. Stan Rand had been here 2 yrs. V. knew Wake, Isomura, others. For about 25 years he had been making trips to Amazon. Now they had two boats there, which go up + down river. He said that about 1970, in season of 6 months a hunter took 10-20 ocelots, 1-2 jaguars. Ocelots trapped in box (of logs) w. drop door, strangled w. wire. Katze Skin 300 cr. value; 1000 cr. for prime jaguar (Dec. 1970). Jan. 1972, however, he met only one hunter looking for jaguar skins, a Peruvian on Rio Japurá. V. thinks prohibition has been fairly effective, + little demand jag. skins now. In Amazon, always are monkey bait. Always skin trade in Pteromys and ocelot. About 10 yrs. ago, learned to tan jag. hides better. Many quit other jobs to hunt jaguar - along Tapajós, became principal occupation. V. said other hunters built landing strips above rapids along river - lately working along Rio Cumariapavara (N. of mouth Foz Tapajós). V. himself only once saw a jaguar. But working w. locals, skinning + talking, has heard much. Boat "L.P. Guimarães + Garbe." Tapajós - many on reserve 10⁵ km. from S. Paulo (part of watershed reserve). Black jag. - has seen 30-40

Journal

21 June 1972.

São Paulo, Brazil

skinner, best from E. of Brasília. Bred in S. Paulo zoo. / Traders - take goods up river on boats; sell to locals, buy back. / Isot. now stamping jag. skins to identify old, prevent sale of recently taken skins. / Main remaining primitive forest area in Amazon are between Rio Negro + Solimões, to N. + E. of Manaus (Rio Branco), above falls on tributaries. Good near Maracá. Some spots unexplored, even close to Belém. / NPA - V. thinks Breckman is only good man; bioclimatologist? / At caracaras giant antater, V. once saw tracks larger + smaller; Indians then said usually hunt in pairs. / Wildlife gone along large Amazon river; must go above falls. V. has not been to Mato Grosso in many yrs.; thinks most jag. Amazon. / Natives say jag. eat stranded fish, caimans, turtles (scoop out w/o breaking shell). Natives consider jag. competitor for turtle eggs (not P. effraena, other). V. was 2 mos. on river w. Medem, + thinks he is somewhat trustworthy in science. (Faked photos). V. also had poor opinion of Ruschi writings, tho admitted R. knew much in head. / V's last Amazon trip was Dec. - Mar. Plans to go again October. Says, in 1915, E. half of S. Paulo state was "unexplored" in rept. Now Mato Grosso settling fast, many ranches. Museum here has about 10 jag. skins (not seen). Highest priced have strongly marked spots, said V. (older - lower price). / V. said real wealth of Amazon is in mining. Amapá - whole river bought. Rio Jari - to grow cellulose, but probably actually to strip mine it. Military govt. of Brazil does not tolerate disagreement, so advice ^{to it} not effective, thought V. / He telephoned to friend Carlos Rein de Magalhães, conservationist w. wildlife interests, and set up date for us.

São Paulo, Brazil

22 June 1972. Went to office of Magalhães in mid-town. Pleasantly received.

Heard that Verdier, owner of Bodoguesana, had died. Ranch had railroad thru it for 125 km., 3 stations. Swamp and savannah. / Recently,

Nature. Vol. 236. April 7, 1972. p 277.

Review of "Mats Grasses" by A. Smith.

(Had knowledge - destroyed anyway.)

Journal

22 June 1972. Thurs.

São Paulo, Brazil

Carlos had flown to Goiânia, thence by chartered plane for 700 mi. into Rio Xingú area, between selva to N., savannah to S. Roads building fast in region. Then saw many tracks of big cats. (about \$300 one way from Goiânia). / Book on hunting - da Cunha - "Vegetação e caçadas em Mato Grosso". Accompanied T. Roosevelt in Mato Grosso. Carlos said Curio Santos books are popular, for public, not forstud. Carlos had article about 1960-61 in "Geografia", São Paulo, about hunt on Bodoquena. Old journal "Caca e Perna", São Paulo, 20 yrs. ago, may have joy. articles. / Owl - Carlos said killed about 30. Most stomachs empty. Others had mostly common Didelphis, next Couacoum. Nearly all had species in stomach or pads feet. No feathers found in food. These in São Paulo state. (Puma - stomach had Didelphis, Couacoum, Canis or armadillo, once called peccary). / Miranda ranch, adj. Bodoquena, hunters w. much experience. / C. introduced Paulo, brother, who associated w. Bodoq. ranch; we invited to stay 10 days, & they will fly us in from Campo Grande on June 30. About 30 yrs. ago, older brother Oswaldo had hunted on Bodoquena from private railroad car. Used dogs - good success. / Hunt methods - fide Carlos - dogs; drift down river, day or night; calling w. drum (= "roncadeira"). Drum mostly amoyan. Jaguar come. / Carlos recorded roar in zoo - played back w. amplifier, large speaker. Some response, but thought atypical roar. That he thought good method. / Melanistis - may be $\frac{1}{3}$ in northern Mato Grosso. But none at Bodoquena. Melan. in parts central & N. Brazil. / Trap acelate - Amazonia - log trap w. roast (to preserve) monkey bait. Endoparasite of puma, Onciscala m., named for Carlos. He emphasized habitat destruction - one ranch cleared 25,000 acres/yr. for grazing, and hoped to increase to 75,000. But C. thinks law enforcement has

Journal

22 June 1972

São Paulo, Brazil

reduced trade greatly. | We took bus out to zoo. Spacious grounds. A "lion safari" area. 3 cr. entrance fee to zoo - see 1 million / yr. some. Lakes w. waterfowl. Well labeled cages. Saw *Echymipera* (long-legged but ears hyena-like), *Pteromura* (playful - sits up). Have about 5 black 5 pintado jaguars, 10 ocelots, 10 margays, several gato da mata (= *F. ^{tygrius} geoffroyi* ? - some from Marajó Is.). Mostly in vet. & breeding compound. One man said black jag. 99% sterile. But they had successful black or spotted & ocelots, with ² cubs same color as parents. Unfortunately could not get all original data cards, as "Loderlas" not there; others did not know much, relied on keeper to tell them. | Also had 2 clouded leopards, several caracals. Group of playful ^{15±} *Brachyteles*, two red-faced uakaris in fine condition, & said had black uakari. | Ocelot - pregn. ♀ (broad stripes, little space between) w. or; other pair in cage. | Director, Mario Antoni, friendly, but little cat info. Secretary from California. | On islets in lake, groups of gibbons, atelids, saimiri, leopards, coatis - some w. only 5-10 yds. water gaps; | Herds of white-faced *Dendrocygna* in lake. | Carlos R. de M. said had ranch 25 km. distant - L. Lanyon, - Schwarz, others had visited there. Some *Brachyteles*. | We returned to center town.

23 June 1972. Friday. Returned by bus to Rio de Janeiro.

24 June 1972. Saturday. A park of about 16 ha. on Av. Vargas has many shade trees, mostly *Ficus*, + lawns, ponds, and 100 or + *agoutis* running free, tame, fed & fed by people. Few groups - mostly well scattered over area. No small young seen - but good area for obs. of reproduction, vid social behavior. Parque da República? Went up Corcovado by train - fine view of city & broader.

(300 vet. offis).

Bach - 1939 - Paper back - 10 fascicles in 1.

Agave Canto de Magalhães

Ensaio sobre a fauna brasileira. São Paulo.

336 pp. Quatro por Penha de Santa Cruz.

Journal

25 June 1972 Sunday

To Petropolis, Brazil

We changed hotels. Then took bus to Petropolis, about 70 min., mostly thru wooded hills, to about 2000' elev. Summer seat of Dom Pedro II, once King of Brazil. Visited F. Pires and family there. Returned to Rio.

26 June 1972. Went to Museum early. Fernando delayed. Looked over old *Casa e Pessa* revistas, w. hunting stories including some about *Onca pintada* in Mato Grosso. Journal mostly 1941-1945. a few issues in 1965⁴-7. Printed in São Paulo. Gun stores advertised therein, oft w. picture jaguar. Mario Moreira Pelucchi, Lilly Rondon, Willi Arvili, prominent authors. Some "cagaçeiros" lance jaguars; one seriously wounded. Some use baited trap (armodilha), of box of sticks w. drop door (= chiqueiro). Some hunt w. dogs. Others try "espera", especially where jag. comes to water, night. Some articles by Ciriaco Santos, author of *Casas e Cocadas*, 1950. Reprint of part of T. Roosevelt book, in Portuguese, in 1945, Jan-Apr. issue. / Tried to visit Magrini; arrived too late.

27 June 1972. To Museum again. Carnevalho there (entomology dept., beetle), having returned from Stockholm meeting (mostly political, he said). Tall man. He said he was assembling different data for 1960-70. He said when commercialization in Rio was stopped, over 1 million were on hand (including anacards, coconuts, etc.). He thought jaguars mostly in less forested areas Amazon, higher ground between lower sites. He thought none far in S. Bahia, former good ^{jag.} hunting area, and Ilha do Bananal, because of ranching development. Probably still can be found in Xingó park, for Indians do not hunt jaguars. He said he would assemble data and allow me to use it. / Fernando P. had invited Alvaro Aguirre to come. Later had collected birds + mammals for museum, had been member old Soc. Casa e Pessa; now retired. Had written booklet on fishing + hunting in Mato Grosso; had lived many years in E. Santa near Doca River (former great variety game) and *Acrotopia pruriens* (probably still jaguar there). He thought S. Bahia never too

Caças e Cacadores Curios Santos

F. Bruguier & Cia. Rio de Janeiro (Isátria Bauer).

202 pp. paper bound.

Tells about old methods - spears, arrows. Game code.

Traps - ^{prohibited but used.} box traps w. section for chicken, goat, other bait.

Traps for smaller mammals. Steel traps, snares.

Requizes:-

Onça pintada, jaguar. Jaguatirica, maracajá in the north.

M. - mirim (Noctifelis) M. - pintado (Margar). Onçefelis

p. 56 Jan - Sept. 1944, official report 73,518 skins feline.

By decree in 1943 to N. Amer.

Describe hunting birds, even turtles. Snakes, rats, deadfalls.

Shotguns, dogs.

p. 122. Caça às onças e gator. Canquên de malhao-longo; jaguarati. Various varietal names - hunters + Indians.

Jaguarena pífura = onça preta ou tigre. Jag. major slogan of livestock in N. G. + Brazil.

game
mamm.
names

"Onça" - Blastocerus. "Bororo" - Mazama rufus

"Gulbeiro"
"Veado campeiro" = Oryzoceros - open country, Emas.

"matiro" - M. rufa. "Catiguero" - M. simplicicornis

Cunha, Heitor Pereira da - "Viagem e caçadas em Mato Grosso." Rio. 1922.

Journal

27 June 1972.

Rio de Janeiro, Brazil

broken up by ranching for jaguars. Ocelots - said harder to see than jaguars. One night killed about 30 chickens in pen; next mite, broke in again and repeated (Rio Doce area). In Rio Doce - Bahia area, not hunt jaguars with dogs (cachorros), but formerly used large dog traps, with cabrito penned inside, as figured in C. Bunker book. Spent 15 yrs. in C.E. Bunker. May get info near Linhares - Estacao Experimental de ^{Cacao} Cacau, or at Refugio Anore-tania. Man "Manoel Morais" used to be in area, hunt much. / He thought perhaps still jaguars in ^{at Ilha} Barroal. Aguirre collected 2 ♂ and ♀ jaguars on Miranda station in same area, evidently breeding season (probably Sept.; spec. in fauna museum). Aguirre thinks jaguars eat mostly deer, peccary, feral pigs - probably not smaller mammals such as possum. Aguirre knew S. Seimel, who had place near ^(S. of) Cocor. One American woman came to hunt; in one month, got no jaguars. This probably before 1960. Aguirre a small lean man, ^{perhaps 70 yrs.} apparently tried to tell why what he knew. Would be useful field companion. He said that skins jaguars and ocelots brought high price, to 1500 cr. for jaguar. / In afternoon, visited Dr. Alceu Magalhães of IB Desenvolvimento Florestal, ²⁰⁴⁰ 3000 Pochos Léo, up slope behind Jardim Botânico. This is federal forest & park dept. He told me of recently formed preserve, ⁷⁰ 70,000 ha., near lat. 10° where Rio Paraguarai hits Bolivian border. They propose a future Nat'l Park in pantanal north of Aquidauana, but he thinks little chance of getting it - too much pressure to use the land for agriculture. He also indicated 5 modest prospective ^{park} areas in Amazonia. He said all commercial, ^{professional} and amateur hunting of spotted cats prohibited. The old stock of pelts supposed to be stamped. But many taken to Bolivia, marked as Bolivian, & exported, including to Brazil. Often hide cat skins between others to smuggle. / Golden marmoset - about 20 turned up in England, confiscated - returned to "country of origin" - Belgium - there said to have come from

alberto Lobo Machado

112A Lot 2.

247-13/6.

Rio

Rio Doce area -

Estb. Exp. Cacau (where Manoel Morais?)

Refug. Secretania

Bambural - area of tall thick grass.

Sometimes "acusa a onça" there;
hard target, compared to tree in Bahia.

comitiva - gr. of vaqueros?

Journals

27 June 1972.

Rio de Janeiro, Brazil

Peru, which does not have this rare species. / Many species of birds, mammals, plants, now listed as having complete protection, no commerce. / M. was friendly, talkative. He gave me short introductory letter. Suggested people in Campos Grande who could direct me to others. / He said I must get letter from Conselho Nac. de Pesquisas ^{in order to do} for research in Brazil.

28 June 1972. Went to office of CNP, in Castelo area. Director of the techn.-

scientific div., Dr. Moreira, very busy with a meeting. I was advised to write a letter to him, & did. / To Museu Nac. again. Fernando absent. Worked on Cayo Coco & Roca articles again in library. / Yesterday & today hot! Preparations for Mato Grosso trip.

29 June 1972. Left hotel. To bus station. Left gear (excess) at Museu.

Talked briefly w. Pires. Took 1030 bus for Campos Grande. Went via S. Paulo, then west all night. (1 hr. time change to w.).

30 June 1972. Arrived Campos Grande 0530. Walked around town. Much

farm goody, saddles, leather, but usual wear & some tourist shops.

A few modern office bldgs, civil storeroom. Visited Museo "Don Bosco", at a parochial school on av. ^(= Pres. Kennedy) Mato Grosso, & 14th July. Indian costumes, but some mounted birds, & jaguar skins. Talked w. Director, who suggested a hide dealer on 3 de Maio. Stayed at Hotel Colombo briefly, to bathe & rest.

Then to biggest hotel, Campos Grande, to meet A. Pereira (accountant), Alexandre Ferreira (administrator) & others of Fazenda Badouguena. All to air-

port, where 2 Cessna planes took us to ranch, about 1 hr. flight. Near

C. Grande, grazing lands & some cultivation - some patches of low largely deciduous forest. Patches variable sizes & shapes - increased to W. - some a few miles across. Many roads in various directions as well as railroad. Occas. meandering stream or small muddy lake. Then a range of hills w. rock cliffs, thicker forest between & below them.

See Roosevelt book -
Brazil, hunting

Journal

30 June 1972

Ida. Bodoquena, Mato Grosso Brazil

Beyond, land flatter - passed by Meranda, small town - lakes & rivers near it. Then landed at hq. of B. ^{6±}, where a dozen or so white bldg. & cleared grassland extensive. (Tach. ^{6±} station from plane en route). We were put up in largest house, about 6 bedrooms, + living, dining, etc., nicely built & furnished. Haven't heard of a hard resistant wood, "arceira" (sp?). Mangrove, flamboyance, palm, others near houses & clearing. On way saw a few ^{small} grassland finch, snake. / Alfie number young - about 30. Alex. energetic, informative, but little interest wildlife. He ^{has} been since 1970 - said prohibited hunt (except peccary, + fishing) or distracted men from work - looking for jaguar skin, 1000 cruzeiros. He has since about 1964. Some jaguar depredation in savannah + cerrado areas then. But long period dry years has apparently reduced all game - mod. rain 1964, none heavy since 1959. Ranch about 400,000 ha., but western 100,000 recently sold. 8 sections, each with its "rastro" and airstrip, extending w. to Rio Paraguará. Alex. says has seen only one jag. in 8 yrs. Others agreed, rare. / Ranch objective to get cattle on all land; then improve habitat thru clearing, planting, + breed of stock (2 kinds Brahman cow). Rudolf - agronomist, Univ. Fla., here 2 ^{mos.} yrs. - saw cat (oncat?) swimming once. Best English. Plant colonial "grass" (*Panicum ^{sp.?} panicum*). Cut & clear, burn twice in successive yrs, then seed by plane. About 1/2 present ranch "pastoral", but w/o the flood water (floods farther N., in San Laureano + Rio Negro areas). / Old roqueira gone (cfc. Jovando Leite, who once worked w. S. Siemel). Alex. likened development now to last century in U.S. (but with planes + other helps). / *Sarcophaga* said to be rare. But 2 kinds peccary, deer, antelope, armadillo, capibara, alligator, land turtle, few snakes. Oncat - scarier than jaguar. / Walked a dirt road to SE for 1 hr. Trache foxes, emu, ^(or tortoise?) antelope, ^{antelope} ^{oganti} (?), others. Saw oropendulas, toucans, woodpecker (gray crest), ferns, many parrots. Forest about 60' high, fairly open, many dry leaves ground,

Journal

30 June 1972. Fri.

Fzda. Bodoquena, Mato Grosso, Brazil.

many deciduous trees; dry aspect - rather like Campesina E. of Escarcega.!

Alex. said visited Europe (last yr.?), met Italian who said used to buy about 1/2 skin
(jaguars + ocel.?) produced by Brazil, but now could not get. / ^{adenda to earlier:-} Carvalho - had said
that army enforced prohibition commerce skins, & was doing good job. / Then
arrived overcast today, little breeze, warm, dry. Vegetation mod. green.

1 July 1972. Rode in pickup to Pato Carrero, adjacent retiro. Saw hand clear-
ing in part of forest - spaced large trees left (for lumber, & killed by fire so
cheaper than felling). In hills, forested, but some areas of ungrazed 6' tall grass.
Below hills, thick grass but trampled & grazed down, but still 1-3' tall.
Short acuri solms in grassland. / We saw gpr 1-4 there in grassland.

Once two fought, engaging necks & heads, ending w. one showing other side
yds. Saw one small antlered deer on road, where grass tall. / Saw about 50
Coragyps, about 10 Colaptes. Large gray hawk perched in fruit. 2 sparrow
hawk (dark, grayish) perched on fence. Spr. of black avir, & spr. of 8'
brown-and-white ^{Gura} "avi-like" birds in open, shrubs. Brownish-red finches, ^{dark wings} some on
branches, in open (slight ^{nest?} ~~nest?~~). Returned to Bodoquena. / Went about 2 km. ^{w.} to lake, 400
m. across. Saw small caiman floating. Spr. capivara droppings along shore,
& tracks deer. Lake said to have "damado" fish. Returned to retiro. Planned p.m. ride
failed. About 3:30 until after dark, walked S. on dirt road & back. Tracks as
yesterday, especially "fox". Some holes excavated, as if by armadillos. No reptiles
seen, few insects; no calls or calls or copimulgids. But about sunset, cacophony
of parrots, small to large. Some tame - did not flush when we at bare tree. Many
farmeria in fruit, various sizes. Mud nest Farmeria on limb. Hanging nests
of honey tanager (from branch ~~to~~). Saw one ama in open woods, grass 1 ft.
tall. Saw no bats or moths - cool winter evening. Back to retiro. We
were told very hot here in January, over 40°C. in shade. Sat. eve.
Two families arrived today, so we have company & noisy children.

Joseando Leite - old timer Carandoza (?) RR sta.

Jornal

2 July 1972. Sunday.

Fzda. Bodoquena, Mato Grosso, Brazil

Many bird calls about sunrise. Walked $\frac{1}{2}$ hr. Parrots, lapwings (pr. - Ptilopus?). Curious clouds. Calm, cool. / We took long walk to SW, by lake. Common Arremon (?) - all brown; slightly curved bill. On grassy hill, 5 Arremon - walked slowly, 50-100' apart, pecking in grass. Heard call - hrrr-llrr- ∇ , very low & recurrent (from rhea?). Sp. - at least 2 smaller than others. / Walked into hills where dry woods. Hanging ^{thorns} (Phacelodermis rotifrons?) stick nests. Red & blue macaws - saw 2 flying close; later, 2 perched. Noisy. Occasional pecking on road. Few aerial tracks. From Greener to W., between hills. About 1 p.m., a draw w. 50' cliffs, lush trees & vegetation. Many small palms. Pair of Arremon (?) tanagers in tree. Flocks to 10 of reddish small finches. Occas. 4" long grasshopper. / On return trip, after leaving fruit, saw small antelope deer (Mazama?) in thick grass. Where 5 Arremon in morning, now 4 - and 2 Arremon (?) near them. All retreated when approached to about 50 yds. Association similar to ostrich & bustard? Even stay 50-150' apart, not bunched in retreat. $\frac{1}{4}$ mi. distant, 3 more Arremon, one 100 m. from others (family grps.? territories? home range?). Rudolf said thought young in January; all ♀♀ lay same nest; one ♂/grps; grps. only to 4-5; some eggs around nest broken, & young fed on fly larvae. / R. said law requires 20% off land left as forest, so they leave it in hills.

3 July 1972. Mon. With Alexander, agronomist, & another, went by plane to Retiro Bodoquena, near B. station on R.R. to W. At first forest dry, about 50% of ground covered. Pink-flowered tree (Tobeleuia?) on hills. B. retiro in circle of ground, ^{labeled about 0900.} perhaps 5 km. diam; about 100 citrus fruit trees there, & a dozen bldgs. & ^{there} houses. Boss, like other administrators, wore pistol. ^(med) Nests of Ferruginus on branches flamboyant trees. Blue-gray tanagers. Black avia, & brown & white "avia" in grps. ^{about 1000,} / On to W., now into pantanal - flat, deep grass, circular islands of palms & trees, remnants of meandering

Journal

3 July 1972.

Fzda. Bodoquerana, MG, Brazil

stream (mostly dry) - rather jigsaw-puzzle effect of grass + vegetation. a flat-topped hill, "Agite," conspicuous landmark. Brown cattle. Little water or mud apparent, but fairly bright green. Extensive stands of 50' tall blue-gray tree (= ^{paratudo} paratudo), well spaced, many w. termite nest at base. (Last part of "cerrado" had complete ground cover, areas of thick palms, or of bamboo (?). also islands of palm + 70' trees in grassland. Took photos. Landed at retiro Acurejot, estab. 2 yrs. only. About 3 wooden houses. In yard, figuiera tree w. small long-tailed parrots, cardinals (white breast, red crest). A white (nearly old) flycatcher (?) = "iguira". Occur palms, and tall fan palms (cariacá). / One man there said much game; over tracks. But Alex said he comes about every third day, & no mention of over. / Off again to W. over paratudo. More photos (to end roll). Large areas of regularly spaced low termite mounds, like monia mounds; perhaps 10 m. between nests, no central hole; photos; these on dryer grassland. Rio Paraguaia, conspicuous arched bridge. Retiro of Buivot, 2 wood houses by river; estab. 2 years. Hills to west & S, but flat horizon to N & NE. 4-5 ft. high termite mounds about 100 yds. from river. River 100 yds. wide. Trees to 60' tall w. yellow blossoms. A caracara perched atop termite mound - some had 6" hole high up, smaller near base (browsing mammals?), but many had no opening. Flushed 2 large caprimulgids (?) from open ground - wings long, marsh-bank like flight; flew 100' & settled; white belly, black throat, conspicuous white band across wings. / We then flew N., looking at paratudo & gpe cattle. One pond, artificial ~~dam~~ dam, had about 100 alligators lined up along shore, perhaps 6' apart, snouts pointing outward. Then to E., south of Agite hill, & landed retiro Bodoquerana again. / I waited there about 2 hrs., & we lunched. The capatay had been here since 1965, another part of ranch before.

Journal

3 July 1972.

Fazda. Badaguana, Mato Grosso, Brazil

He said saw last once peritoda 5 yrs. ago. Carlin, killed 13 in 5 yrs. He said being vulture rare. Alex said never professional hunter here - perhaps 5. Scimed. Another had dogs. Mostly, men saw vulture near canon + found jaguar there. / Around buildings, in open trees I saw at least 5 Furnarius mud nests, 8' to 15' up. One had 2 ^{of the birds} perched next to it. A shrike-colored bird in open; gray, black; white throat, wing bare. Mockingbird(?) too. / Returned to headquarters. Forest felled in many areas, leaving dead slash + spaced tall trees. / Last eve, took 1 hr. walk on dirt road about 8:30-9:30. Saw 3 caprimulgids on ground (light color; strong white marks) among dry leaves at edge woods, one small deer (mazama?) in grass by house, one canid (fox? - long gray hair, some black areas; stubby) on ground, one Didelphis in tree. Heard no bird calls. / Set large antler swamp deer (Blastoc.) on wall at Rita's Bar, 2 sets at house at headquarters. None of pampa deer seen yet.

4 July 1972. Departed 0400 by pickup for Morimondo (sp.?) river, on Miranda river. First out to dirt highway at Guaicurus sta., then w., turned off to Badaguana river, then on to M. River 100' wide; said had fish-piano, paca, others. Many birds in early morning. Foggy. A jabiru flew up from road, carrying stick in bill. Saw a "fox," perhaps 5 kg, gray w. black tail + dorsum. About 5 wooden hedges. 3 drying skins of passer. "Capitay" said had never seen jaguar or trach there. Several men were watch one shot at a caracara in tree. / Heard Furnarius ⁱⁿ yard. A few "cardinals" on posts + woodpile. At edge woods, red crested woodpecker, jays (black heads, white belly), other birds. / Saw left w. + others on horseback, to look over route new road on pantanal. We each had 2 sheep fleeces under pad on top of saddle - comfy + soft. We road through grass 6 to 8' tall, and shrubs, palms, mesquite. Not muddy or damp. We passed large field of

Journal

4 July 1972


Fzda. Bodoqueano, Mato Grosso, Brazil

termite mounds. These about 5 yds. apart, to 2 and some 3' high, m-shaped. Many ^abad ¹humans (of armadillos) dug into top or side. Flat ground. For about 2 hrs. we road through untitled area, severe thickets, sticky brush, thick grass - hard going. Then reached retiro of Mutum - 2 wooden bldgs., truck on road. Then on along dirt road for 2 hrs. to train station + retiro at Carandagal (where old-timer Roseando Leite, but out). On way, the men shot a 9-banded armadillo. Once, in early fog, 2 jacobins flew over. In gen'l, few species birds (mostly ^{black & brown} ¹ ² ³ ⁴ ⁵ ⁶ ⁷ ⁸ ⁹ ¹⁰ ¹¹ ¹² ¹³ ¹⁴ ¹⁵ ¹⁶ ¹⁷ ¹⁸ ¹⁹ ²⁰ ²¹ ²² ²³ ²⁴ ²⁵ ²⁶ ²⁷ ²⁸ ²⁹ ³⁰ ³¹ ³² ³³ ³⁴ ³⁵ ³⁶ ³⁷ ³⁸ ³⁹ ⁴⁰ ⁴¹ ⁴² ⁴³ ⁴⁴ ⁴⁵ ⁴⁶ ⁴⁷ ⁴⁸ ⁴⁹ ⁵⁰ ⁵¹ ⁵² ⁵³ ⁵⁴ ⁵⁵ ⁵⁶ ⁵⁷ ⁵⁸ ⁵⁹ ⁶⁰ ⁶¹ ⁶² ⁶³ ⁶⁴ ⁶⁵ ⁶⁶ ⁶⁷ ⁶⁸ ⁶⁹ ⁷⁰ ⁷¹ ⁷² ⁷³ ⁷⁴ ⁷⁵ ⁷⁶ ⁷⁷ ⁷⁸ ⁷⁹ ⁸⁰ ⁸¹ ⁸² ⁸³ ⁸⁴ ⁸⁵ ⁸⁶ ⁸⁷ ⁸⁸ ⁸⁹ ⁹⁰ ⁹¹ ⁹² ⁹³ ⁹⁴ ⁹⁵ ⁹⁶ ⁹⁷ ⁹⁸ ⁹⁹ ¹⁰⁰ ¹⁰¹ ¹⁰² ¹⁰³ ¹⁰⁴ ¹⁰⁵ ¹⁰⁶ ¹⁰⁷ ¹⁰⁸ ¹⁰⁹ ¹¹⁰ ¹¹¹ ¹¹² ¹¹³ ¹¹⁴ ¹¹⁵ ¹¹⁶ ¹¹⁷ ¹¹⁸ ¹¹⁹ ¹²⁰ ¹²¹ ¹²² ¹²³ ¹²⁴ ¹²⁵ ¹²⁶ ¹²⁷ ¹²⁸ ¹²⁹ ¹³⁰ ¹³¹ ¹³² ¹³³ ¹³⁴ ¹³⁵ ¹³⁶ ¹³⁷ ¹³⁸ ¹³⁹ ¹⁴⁰ ¹⁴¹ ¹⁴² ¹⁴³ ¹⁴⁴ ¹⁴⁵ ¹⁴⁶ ¹⁴⁷ ¹⁴⁸ ¹⁴⁹ ¹⁵⁰ ¹⁵¹ ¹⁵² ¹⁵³ ¹⁵⁴ ¹⁵⁵ ¹⁵⁶ ¹⁵⁷ ¹⁵⁸ ¹⁵⁹ ¹⁶⁰ ¹⁶¹ ¹⁶² ¹⁶³ ¹⁶⁴ ¹⁶⁵ ¹⁶⁶ ¹⁶⁷ ¹⁶⁸ ¹⁶⁹ ¹⁷⁰ ¹⁷¹ ¹⁷² ¹⁷³ ¹⁷⁴ ¹⁷⁵ ¹⁷⁶ ¹⁷⁷ ¹⁷⁸ ¹⁷⁹ ¹⁸⁰ ¹⁸¹ ¹⁸² ¹⁸³ ¹⁸⁴ ¹⁸⁵ ¹⁸⁶ ¹⁸⁷ ¹⁸⁸ ¹⁸⁹ ¹⁹⁰ ¹⁹¹ ¹⁹² ¹⁹³ ¹⁹⁴ ¹⁹⁵ ¹⁹⁶ ¹⁹⁷ ¹⁹⁸ ¹⁹⁹ ²⁰⁰ ²⁰¹ ²⁰² ²⁰³ ²⁰⁴ ²⁰⁵ ²⁰⁶ ²⁰⁷ ²⁰⁸ ²⁰⁹ ²¹⁰ ²¹¹ ²¹² ²¹³ ²¹⁴ ²¹⁵ ²¹⁶ ²¹⁷ ²¹⁸ ²¹⁹ ²²⁰ ²²¹ ²²² ²²³ ²²⁴ ²²⁵ ²²⁶ ²²⁷ ²²⁸ ²²⁹ ²³⁰ ²³¹ ²³² ²³³ ²³⁴ ²³⁵ ²³⁶ ²³⁷ ²³⁸ ²³⁹ ²⁴⁰ ²⁴¹ ²⁴² ²⁴³ ²⁴⁴ ²⁴⁵ ²⁴⁶ ²⁴⁷ ²⁴⁸ ²⁴⁹ ²⁵⁰ ²⁵¹ ²⁵² ²⁵³ ²⁵⁴ ²⁵⁵ ²⁵⁶ ²⁵⁷ ²⁵⁸ ²⁵⁹ ²⁶⁰ ²⁶¹ ²⁶² ²⁶³ ²⁶⁴ 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Journal

5 July 1972

Fzdd. Bodoqueara, Mato Grosso, Brazil

land turtle about 16" long, 10" wide; thick; red scutes on hind legs + tail - on front floor. Concave plastron. Tracks apparently  (cl. about 1 ft). / In open pasture, spring in 1/4 acre fenced area, w. *ucuri* palm, cecropia, other trees; mud under had many deer tracks. From this clump flew 6 large (penelope-sized) cracids - black, white heads, white patch at bend wing - they flew singly about 100 yds. to forested slope. / In forest, signs mammal use - tracks, scratchings, eaten *ucuri* fruits. / Saw 40± *Crotophaga* circling high, and above them one *Sarcophaga* circling slower. In grass and shrubs near lake, a small deer; ran w. tail down. In pasture, 2 *Taricticus ibic* on ground. Two hawks, w. white bodies, black wings, circled in distance. Returned to lodge. 1230. / Rudolfo said tapia near Porto Carrero - men told not to harm them. / Late afternoon, walked S. on road thru dry forest until after dark. Overcast, muggy. Little bird activity. Returned in dark w. light. Saw about 4 bats. One caprimulgid on ground, calling. Other eyeshine - probable small cat, deer. No owls.

6 July 1972 Overcast, calm. Felt birds flying 7 a.m. A jaguar track reported near Acarayal. Plane took us to Bodoqueara. Walked around. Some parrots, flock brown oris, Flock 100+ birds (parrots?) high over plane, headed for hills. Three old mud nests of *Furnarius* in one tree by house, 10' up, 6-8' apart. / Wind increased. Plane took us to Acarayal. Told that wind covered orca tracks. Copalay, Arguello, said little game (know of no orca seen). Another man, our guide, thought "muito". / Waiting, took plane to Pucallpa.

Saw many sq. km. of termite mounds. Rough landing; strong crosswinds. Back to Acari. Then horse ride for 2 1/2 hrs. around area of ^{reported} orca tracks. Much of land brush grass; mats of shrubs, palms, trees mixed. "Parrots" in open stands (*Campanula*?). About a dozen *Polyborus* on ground in coral area. One *anherga* in large stock pond. Two small deer - *reus* mato-

(photos
made in
to end)

Journal

6 July 1972.

Fzda. Bodoquena, Mato Grosso do Sul

in grass among termite mounds; allowed approach on back to 100'; then ran, tails down, to mounds. Our guide said serico (*Blattaria*) in area; leather prized for saddle & chop leather. Flew back to *Susicuv* headquarters. They had been working & repairing cattle today. / A visitor from Fzda. Santa Lucia said few jag. there now, but formerly (over 10 yrs) had professional hunters w. dogs; killed over 50 jaguars one year. He said a pilot in ^{Campes} *Barro* *Islands* hunted much. / Alexander said army enforces game laws. He reports seeing violators, such as gpo. fishermen, from plane. Army men come. / A. said he saw army confiscate load of alligator skins at Coimbra. Later, skins were returned to owner, who claimed he had alligator farm. Much control across border in many items; hides, animals. A. reported: about a year ago, on plane from Rome to Brazil, sat by skin buyer who said he formerly bought ~~or~~ huge nos. skins Brazil, but now could get none and had to search in border towns of Bahia, Pernambuco, Peryray (?). A. said, one reason prohibits hunting is that attracts people who want to hunt; in 1958(?), David Rockefeller killed a jaguar in 10 minutes of hunting. Others heard about it, came ^{wanting to} to hunt, tho kill was a rare occurrence. (Much wind today, the August said windiest month.

7 July 1972. Nimbus clouds. Heavy rain shower about 0730. Then winds about 20-30 mph, occas. light rain. Rain on and off, & winds, throughout morning and until about 1500. Then clouds higher. Walked to lake to W. saw track *Tapi* on grassland side. Pair of *Therapsid* in tree; noisy squawks. Pair of *Ptiloscelus* (leopards) about same area as before, & track *reba* in mud on road. Cold day. Clearing about sunset.

8 July 1972. Saturday. Alexander did not return, so our flight over pantanal delayed. Walked S. on dirt road. Near water pool, 50 yds. off road, track of *Tapi*. Frequent large & small dog tracks, many probably of fox, some perhaps of ocelot-sized cat. Cold, but serious clouds, moderate

start -
Koford. 3

Journal

8 July 1972.

Fzda. Badoguan (Guaicuru), Mato Grosso, Brazil

breeze. More cattle roundups, processing, separating today. Both Corynorhinus + Polyborus on old carcasses. / Back at Acurezjal, in open grasslands, saw several white birds w. black primaries (flycatchers? - about $1\frac{1}{2} \times$ vermilion flycatcher size) perched atop shrubs + palms, in open. / In late afternoon, ^(Guaicuru) walked W. to lake. On grass about 5 yds. from bushes, a Bothrops about 3' long, D-V flattened, + tilted flattened back toward me. Curled tail tip at terminus. When disturbed, held front 8" or so of body about 3-4" off ground, somewhat cobra-like. Took Kodachrome. / In eve, Padre Clement Krug from Miranda came (American, from N. Jersey). He had been based Miranda + months earlier, farther S. on Paraguay border (where said smuggling a thriving business). He said Cuiaba-Miranda road only about a year old (P.R. for much longer), and that he heard from Miranda hunters that much night hunting for deer along it - one group killed about 500 in one year. C.K. thought much clandestine hunting, little control or enforcement. He said peccari sometimes seen at night along road to Miranda. / Rüdolfo said forest clearing at rate of about 12,000 ha./yr. on ranch. Aiming for 100,000 head of cattle (300 on ha.) eventually. / Alexander had talked w. Dr. Magno Coelho, head of family, at Fzda. Santa Lucia. He had said formerly professional ^{orga} hunters w. dogs, but now wildlife protected, these hunters put elsewhere. Coelho said we could stay there but in July, vacation time, many family visitors. Brother of C. = Dr. Helio C., of Campo Grande.

9 July Sunday. Overcast start, cold. Aue + I walked to W. for about $1\frac{1}{2}$ hrs., then back. Dry forest, many leaves on ground. Tracks of "fox" common on path. Also larger canid tracks - some possibly not domestic dogs. In area of streambed (no water), trees taller, greener; we heard howler monkeys + moved toward them but did not see. Band of about 8 sooty jays w. black heads, bawling

(Kodachrome)

Journal

9 July 1972. Sunday

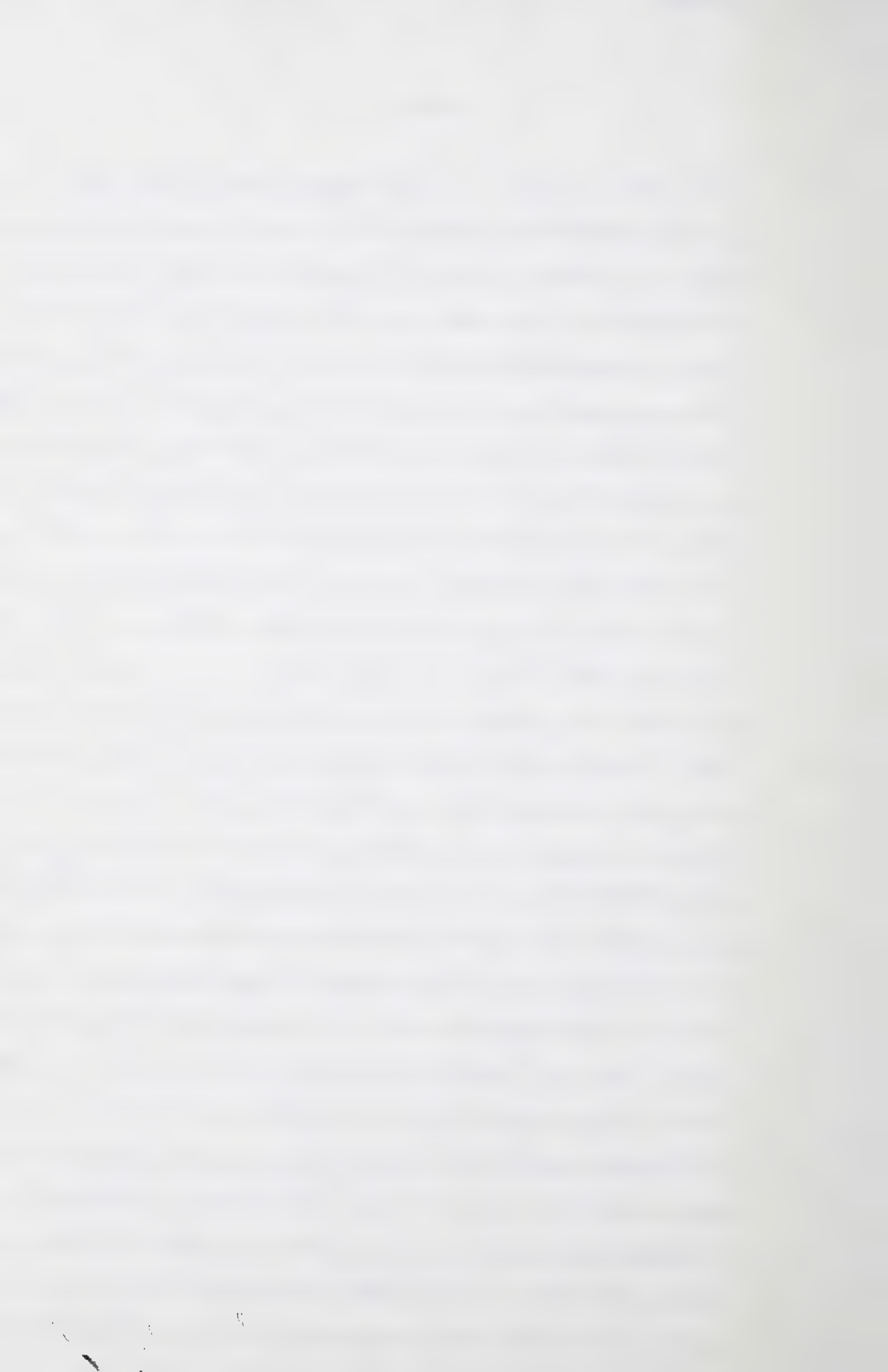
Fzda. Rodequena, Mato Grosso, Brazil.

in loose flock (like brown jays of Mexico?). One ite, 2 pairs of piloted-type woodpeckers, on 6-8" diam. trunks, 10-20 ft. up. Vermillion flycatcher, and white (flycatcher?) same open area. Deer tracks occasionally, and one small deer ran w. white tail high (larger than *mazama*?). In his yard, Alexander had a young *mazama*, born in velvet about 1" long, very tame, pettable. / about 1:30, departed for Miranda by car with Padre Clement Krug. He said had seen peccaries from this main road. Crossed Miranda ^(?) river on bridge; 50 yds. wide. Then to town, about 5000 inhabitants. We stayed at Redentorista quarters, next to church on plaza. Clem + Claudio (Brazilian padre) said much hunting by local people on weekends. Claudio said a jaguar reported killed at place about 20 min. away, recently. Remained cold all day.

Miranda,

Mato Grosso

10 July 1972. C. Krug took us to Miranda Estancia by jeep; he had business there. about 1 1/2 hrs. dirt road, through about 15 gates. Nearing the retro, more swampy. Saw a jabiru, swampy ponds w. water hyacinths, jacana, tern, anhinga. a *seriema* ran around near road, flashing spread tail w. white bars, seeming to direct flat of tail at us, crest up. also saw 2 rheas (Clem + *seriema* said to be associated often). Condy house, 20± buildings at center, next to a large reservoir. Main house luxuriant. Living room about 30' long. Several jaguar skin rugs. Antlers and skins (jaguar) on walls. Over fireplace, a line of jaguar skulls - perhaps 20 or more. another shelf held smaller ones, perhaps some of puma. A board meeting in progress, so met some officials of company. In yard, cage w. ♂ + ♀ jaguar, another w. puma + cub. Macaws in yard, flying free. / The administrator, George, apparent son of owner. / G. interested in wildlife. Said now prohibited hunting (except peccaries + armadillos?). Said father had killed many jaguars, perhaps over 100. G. had killed several. He estimated 30-40 now on the ranch, mostly in the swampy eastern part (300,000 ha. all together). He thought some range about 15 km. diam.; but depended on food supply + nos. cats.



Journal

10 July 1972

Miranda, Mato Grosso, Brazil
(wounded?)

Said pumas killed more cattle than jaguars. He had lost some jaguar in summer, or could not follow w. dogs (large Brazilian dogs, like brown great Danes, said derived from early slave-grinding dogs - we saw several). Says jag. dogs prey to water first - even fairly long distances, large animals - feeds, sleeps. Gradually moves farther, farther, each day. In about 5 days, ready to feed again. I think produce more than 1 litter/yr. Pecarias said numerous - can be seen down with car ~~at~~ at timber. One man said sero (Blutecoro) present, but hunting strictly forbidden (many antlers on walls). George said his father bought ranch about 1950, when Sandra Seimel was there. They bought all of Seimel's equipment, to stop commercial hunting. Seimel had compound about 50' wide, in which he photographed jaguars. (George said heard that S. died recently.) One man said not to believe everything in Seimel books. George said he had killed about 20(?) jag. in 20 yrs.; last about 2 1/2 yrs. ago, because ranged near habitation. George invited us to come in a few days & stay, said that we could probably see jaguar trader (go by horse from road). He said some ocelots but scarce, or hunted heavily for pelts - if got outside ranch, taken. Had used box traps to take ocelots in past. (He did not know skin prices.) I took some hopeful photos of skulls in house, w. borrowed flash. George interested in introducing exotic game to ranch - zebra, antelope. George said that hunted jaguar would pick worst possible place to turn & attack pursuers. He has thought animals had exclusive home ranges; rare to find two together. Returned to Miranda. On ledges about 3' under eaves of church buildings, old ^{mud} nests of Furnarius, with Passer domesticus on & around (also in ? them).

11 July 1972. Took 0830 bus for Campo Grande, about 6 hrs, incl. stops. Aguiarano larger than Miranda. Short dist. to w., range of rocky hills, with some nearly vertical red cliffs about 300' high. Patches ~~erect~~ (?) forest along base of these ^{cliffs} ~~hills~~. Most of road good red dirt road through "cerrado". Looked for Fritzy Blend, ^{campo}

João Borges Neto
Aero Rural
Vila Nicodemas

Fritz Bluma

Magno M Coelho

Fz de. Tupacceratan
Toto Randon

Journal

11 July 1972

Camps Grandes, Mato Grosso, Brazil.

recomm. by A. Magrini; moved to Corumbá. Bought 12 July 1972 issue of *Crangon*, which included article by Claudio Kuch on jaguar hunt in Mato Grosso. Various people think refers to Fzda. Caracará of João Borges Neto (Rio + C. Grande).

12 July 1972. Wednesday. Overcast morn. Waited for Miranda Est. pilot, + searched for him.

No luck. Went to residence Fritz Bluma; road to Corumbá. Raining day.

13 July. Thurs. Pilot, Cezar Franco, arrived w. note; can go to Miranda on Monday.

Visited hide dealer, Aguiar - only cattle + sheep hides. Husband now working on fazenda.

Wild animal skin trade terminated; prohibited for over a year. Went to Aero Park,
(Aero Rural, Vila Nicodemo)

to look for Fzda. Caracará owner, João Borges Neto. Found his house, but he had

flown off to ranch. Left note + introductory letter for him. Went to escritório of Magno

Alcântara, in bldg. next to Hotel C. Gr. Not speaks English or Spanish. About mid 50's,
(Sta. Luzia)

energetic. Said no commercial hunt on ranch since 1948. all pantanal. not cutting forest. Wet area. Known of only one cow killed by jaguar during last 2

yrs. Said 60% of cattle of Mato Grosso in Pantanal. Suggested Fzda. Tupor⁹
(Aguiar)

ceretan, of Toto Rondon (Luis B. on ranch), as source hunting info - they have
afternoon
days + eggs. Little Lily Rondon, of old Coca + Berra article, of this family. Sprinkly.

14 July. Fri. Took 0830 bus for Corumbá, about 9 hr. trip. Overcast, sprinkly

morning. Good red dirt road. Stopped Aguiar (clean, paved), Miranda. Beyond,

more ponds on pantanal. Saw two jabiru by road, many caracaras, occas.

Dendrocygna, curlews, white egrets, comarants, parrot flocks, ibis.

Canal Rio Paraguai, about 300 m., on large. Floating rafts of hyacinths going down

stream. Beyond, flat pantanal w. scattered brush, trees to 50' on grassland.

Then more trees, many in pink flower (*Talibania*?). Up about 200 m. over

a line of hills, red rock in parts, covered w. deciduous forest, mostly

leafless, to about 90' tall. Many sq. miles unbroken forest. Down to

lower level. Ranches. Much cleared or partly cleared forest. Many of

the hanging stick nests, often 2 or 3/tree, in sparse leafless trees. Stayed Corumbá.

Alexander Ferreira - admin., Bodoq.

George Ellis - admin., Miranda E.

Tonito Marquez
pilot - Bodoq.
Palace Hotel, C. Gr.

Cezar Franco
Pilot, Miranda Est.
Sedro Cedro 145 - Vila Cabreria. C. Gr.

Fritz V. Blum
do Universidade, C. Gr.
(Botany, pastures - Pantanal)
14 - R. Curial, Corumbá -

Magno M. Coelho (& Antonio)
Edit. Coelho - 915 13 de Maio, C. Gr.

Journal

15 July 1972

Corumbá, Mato Grosso, Brazil

Apparently prosperous town, perhaps 5,000. About 5 tall modern bldgs. On Paraguai River - many boats about 50', & some steel hulled about 100', at docks & shore. Rafts hyacinths, some over 5 yds. down, going downstream. A line of fishing boats in stream. Some very old Spanish bldgs. Many leather shops, several gun & sport goods shops, but no spotted cat skins or pants seen. Some had quezada skulls, toucan heads. Only cattle hides seen waterfront. No ^{wild} animal products evident in ^{central} market (indoor, orderly). ^{Found some of} ~~no skins wild~~ ^{Praty Blume,} pantanal pasture aspect (Rua Curitiba, no 14--), but he absent on trip (can reach by rail thru university in Campo Grande). Rains late afternoon. Manganese mine said to be about 20 km. distant. A small museum in center city; included vogues' eggs, some snakes (dried or pickled), old photos area.

16 July 1972. Sunday. Took 0840 train to Miranda, about 6 hrs. Good view down pantanal. After cross P. river on bridge, then open stands of pure "paratibo" trees, to 20-30'; some in yellow flower. 3 native grass areas. Some near Termita waconda. Then areas of cerrado, deciduous forest, on Fzda. Bodaguera. Visited Padre Redentorista (a American, Clem ^{Krupp} & Ken Krupp) in Miranda. Provision animal figures of Nova S. -- in use.

17 July. Monday. Telephoned Miranda Cit. for truck & waited. Came about 3/4 10. m. Recent heavy rain so much water on road. Saw on road: 1 gauri, 1 weede wateris, 1 cartita. A gp. of 6 large emus. Sp. 10+ blue macaw, flying. Big lake just before house. A few water buffalos near it. Lake had caimans - saw 2 on shore about 6' long. (copulating pair) Marshy edges had Theristia, ducks, jacanas, g.b. heron, big egret, lapwings, flycatcher(?) all black ex. white head. / Flights over lake to W., late afternoon. Sighted gp. of sooty hawk (3a bite. Parrots, ibis in flooded areas, small flocks ducks, egrets. / ouca pintada in cage; said 10 yrs. here; 4, taken as sub, 2 yrs. No reproduction young yet. The 4 ouca parda makes hissing sound, mouth open, legs stiff. Cub, now almost spotted, playful. / Several large land turtles in yard. In eve talked with veterinarian, here 6 months, ^{Sabão(?)} ~~Colon~~ Dávila. He knew many

article - A mulher na Transamazônica.

Marchés. No. 1056. July 15, 1972. pp. 78 - .

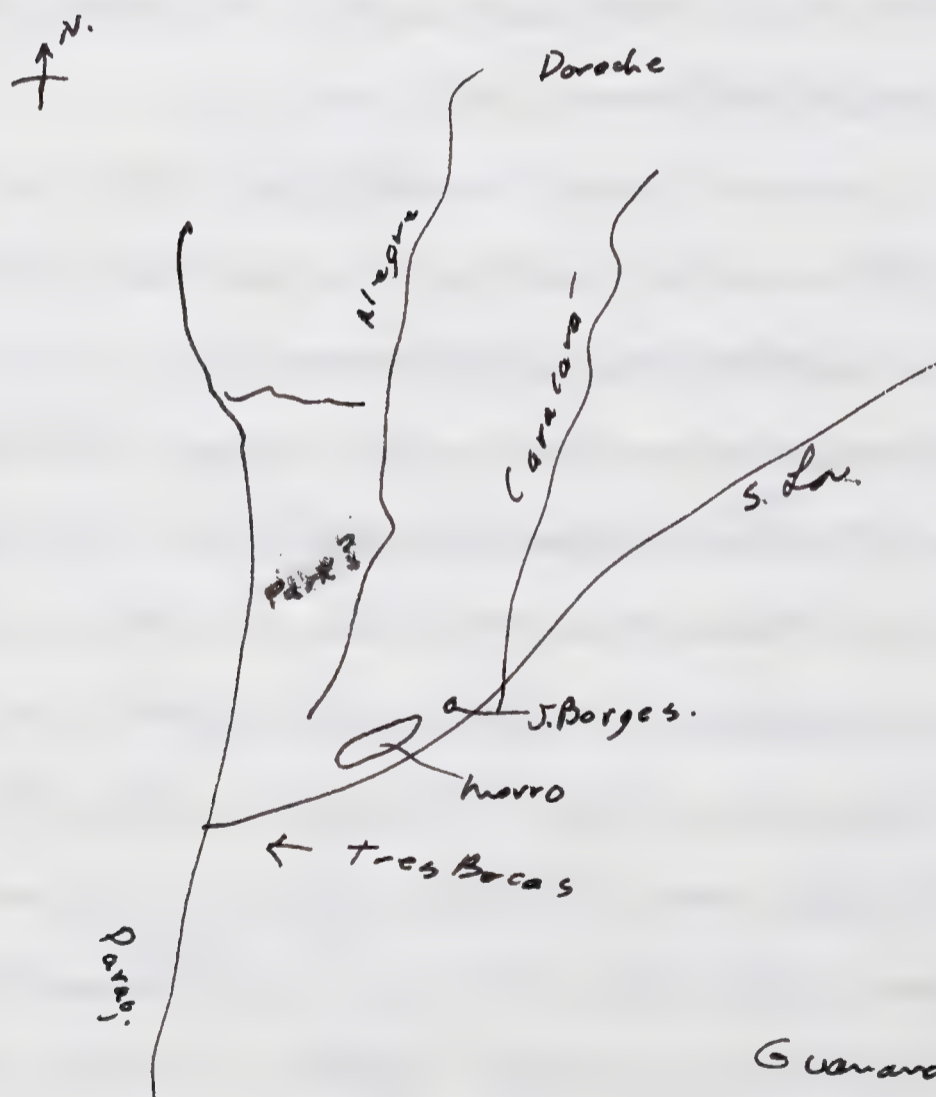
Color photos.

"Agrícola" - cooperative settlements - spaced 10 km.

"Travessia" - cleared ^{road} lines every 5 km. road, going in 5 km.

"Lote" - along there, for individual families. Plant. Hunt. Program of INCRA. Pay over period of 20 yrs.

also are "incentive" programs for developing land.



Guardião - ftd. of Rondon,
Aquiridiana.

Pocão - base of piloto. Bororo Indian -
hunts jag. much; Kuams,

Journal

17
18 July 1972.

Miranda Estancia, Mato Grosso, Brazil.

pantanal fazendas. Had walked on Caracari for a year - said many once there, killed perhaps 200 cattle/yr. Adj. fda. of Dorochei (Paul Natividade) had English administrator; also many jaguars, esp. in area called Seta Valtan. Wealthy men of São Paulo had houses in Tree River area, jct. Curitiba & Paraguri. / Talked w. George Ellis. He said that man ^(boy?) killed by jaguar at Caracari, about 1 yr. ago (when hunting) - got behind tree, but jag. reached around both sides & grasped. About 8 yrs. ago, neighbor tried to kill ♀ w. spear; it went to side toward a woman, & he attacked & wrestled jaguar. Finally shot. But man's scalp torn off from rope forward. Quixada - very dangerous; large herd, 4 sentinels beyond edge; jaguars fear & seldom attack - but take many of caimitu. Jaguar eats many caimans - the crocodiles too. Also take ema. A pet ema in yard put head into jag. cage, & jag. grabbed head in mouth. Man tried to pull ema body out, but head came off. Jag. ^{found} also in dense thickets, higher ground; cover may not be tall. One called 44, from size (?) tracks, hunted about 20 times, unsuccessfully. / Jabiru - now building stick nest not far from house. Priodontes - rare; found once on road. Blastoceros - present, but protected; several sets antlers on wall, but mostly found, not killed (one set Oryzoceros antlers on wall). Blastoceros - hard but big hunters for hide; can be approached from downwind to 5 meters. In swampy places. Ema - nests now. When hatching August, may see 20 young together; hard to run down. Seriema - not associated w. ema; rarely flies, but if pursued in car may fly once. King vulture - have but not many; in rocky area found a large downy young which he thought was this; no solar head, had small in place (perhaps black vulture?).

18 July Tues. Short walk, 7 a.m. Clear, cool, calm. Much noisy bird

pilot-hunter Pocumē = Ignacio.

About a year ago, shot by accompanying hunter by accident.
(to Miranda)
once-mauled man on adj. façade of Lerin Pardon.

Vet. - Miranda ext. M

Salon D'Amila Azeredo

Book - Português Contemporâneo.

Georgetown Univ. Press, Wash. D.C. 20007

1966. Marcela Abel Alva Clara Renah (?)

Padre Redentristas - Vigário de Paragua

79380 Miranda, MT.

with onca track - outside toes.

Journal

18 July 1972

Miranda Estancia, Mato Grosso, Brazil

30' up in flamboyant, communal nest of small long pointed-tailed green parrots; 2 seen in each of 2 of the 3 entrances. Took photo. George Ellis said nest here said years. / George said that onca sometimes whistles like tinamou (Crypturellus). In eve, with headlamp, saw red eyes about 20 canins in swampy border lake near house. Bats flew low near + under mango tree in yard. Saw caprimulgids on road while driving; heard near house in evening.

19 July 1972. Wednesday. Clear day; warm. In swamp near house, where brushy cover, capibara droppings + old skull. C. said sawman here; also guaxada, catatu. / Many chachalacas in front edge just N. of retired buildings; many calls eve, morning. / Yesterday saw trogon with red vent, green back, along road. / G. said harder to find cervo (Blastoceros) than onca. He could recommend no specific place for guaxada - said in rising banks, near water. / We paddled around edge of W. half lake - saw alligators, herons, jacanas, but no mammals (2 hrs.). / About 1/4 mi. E. of house, 2 screener (^{Chavira} Canins) on green grass near trees; flew when approached to 100'. Later photos 2 in swamp edge, at about 60'. / Saw glossy ibis, black + white ibis. / About 2 p.m., B. showed us jibini nest above road about 1/2 mile E. of house. In isolated large tree, then leaf cover, on open branch about 30' up, a pile of sticks about 5' diameter, 3' thick (2 holes below; apparently parrot nest built in). At disturbance below, adult stalk stood up; repeatedly shocked bill about 5 quick sweeps. In spite of us below, sat again. / Walked out road until sunset. (armadillo) Saw tate twice, once by brushy grass, again by spring, pine thicket. Saw white woodpecker (black wings + center back) on tree in open; climbed trunk + called like sapsucker. Several kinds parrots seen; some w. sooty heads. Two screener among brushy grass clumps - walked foot away, not allowing approach to 50 yds. Walked on open ground between clumps. / Shells onca p. on mantel - largest Jan. 1954, 12 8/16 long x 8 1/16 wide (= 21 3/16).

Lila Doherty

Arbuckle, Calif.

About 1967, came to # Agueduana area to hunt.

Journal

Miranda Estancia, Matto Gr.

20 July 1972

Chavris

Morning walk 1 hr. Two pairs Cannus about 50 yds. apart, in shallow swamp (a few inches) edge lake. On nearby dry ground, groups of about 15 large nighthawks?, white heads on long clear wings, as seen at Pinarol. When disturbed, again landed in grass + became almost invisible. Black throat, white belly. Heard group Alouatta in distance, perhaps $\frac{1}{2}$ mile distant. Two Theristicus roosted in jaboria nest tree. Glossy ibis flock about 10; flew in line [^]. Large pygmy on ground; blue-gray back w. pale area upper head area; 50±. At entrance to main house, communal parrot nest of rough sticks (from old coconut flowers) among coconuts (long tail, yellow green breasts; above bill red, black, yellow (crown). | Falco (aplomado? - barred under tail + ^{wings} white; white face + throat w. black mustache) on branch w. dead bird (Furnarius rufus?). When I flushed it, flew with prey. Parrots screamed much and several mobbed hawk in air. | Saw a scops owl in area brushy grass at edge lake; reminded me of a woodrat, deer-like. | Truck took us to Miranda. Saw jaboria, several blue macaws, en route. Brief visit w. Padre Pedernites. Then 2 p.m. train to Aquidnana. There met Pe. Rosendo Fiorini (sp.?) and others. Found that Linus Ponder on fazenda. Rosendo took me to visit Anatol Zwiowski (sp.?), 1479 7 de sept., who had been friend of Bascha Seimel. Z. had visited many fazendas in "fiscalizaçao" work. He had various photos of Seimel - one with small children, wife,

Journal

20 July 1972

Aquidaua, Mato Grosso, Brazil

at Barranca Vermelha, on Miranda Estancia, in 1944. Z. said S. first hunted in Descalvados area to north. S. had house boat, river boat, all eqipt. ^{Hunted} many areas. (I think) he got 200 cr. for removing an onca pinto. (Conversation with Z. in Portuguese). Z. had photos of last 2 hunters. S. killed, in 1965-66, ^{at} Ananias, Campos do Indio. Z. remembered little of biological data; thought S. had notes on sex, size, location, etc. S. killed addresses: Green Lane, Penna. Heywood 2324. Later - S. killed, Museum and Store, Rte. 29, Perbismenville, Pa. | Z. said some called onca through barrel of shotgun. Z. said only .22 rifle necessary to kill, shooting in at medial eye. Said ate many guaxados - also alligator, turtles, tatu - usual list; not anteaterr. Z. first in Mato Grosso in 1927, when rough dangerous place. Z. thought there was still an onca hunter + equipment on ^{Fozda} Tupacacatan (sp. ?), next to Miranda. Son of Z., about 20, said did much local hunting near Aquidaua at night. They both knew well of prohibition of hunting cats. Z. said formerly some used box trap of sticks to trap ocelots. steel trap - onca p. chews off own foot. Son said ocelots not far from town. | We stayed with Padre Relentinas.

21 July 1972. Rondon had not returned from Tupacacatan. We visited ^{Sr.} Sady Berger on Aquidaua. He had fozda. Saisan, west of Miranda est. Said had hunted 1946 to 1962 (when injured by gunshot). Said killed 64 onca pintado, only 4 parda (thought rarer or pantenol). Knew S. killed; said once S. put succum in with jaguar, + latter ^{+ avoided} feared the snake. He hunted some on Rio Arinaqua. Said jaguar about finished - also loutra and arinarba. Ocelot - no info. He said had never met commercial hunters. Ranchers paid S. expenses to hunt their areas.

Journal

21 July 1972

Aquidua, Mato Grosso, Brazil

He said cervo also rare, largely because of after. Said cervo delicate, had hard time during dry periods. Fazendeiro pro-
 test cervo now. Less flooding than years ago - unfavorable
 to cervo. Hot weather, onça pintado may lie in water. He has
 hunted only w. dogs, in day. No calling or night. Rare for pursued
 jaguar to go up tree. Jag. kills cattle by biting back of head. Eats
 goats, caiman, queixada, castor - usual list. Seemed sympathetic to
 wildlife. Said he had killed us gogoiá. Told story - about 1910, man
 killed pregnant ♀; opened, had 2 cubs. One kept alive as pet - slept
 on bed, guarded daughter. Once when licked girl's arm, she pulled
 away & jaguar bit her. Sent to zoo in Rio. One day attacked &
 killed keeper. Moral - never ^{really} tame - inherently wild. |

July 1972

Meranda

Pe. Ricardo said - about c. yr. ago, a Scandinavian man (w. wife + child) came to area and took photos in pantanal, - later published in Oryziers or Marchete. who?

Meranda Est.

George - one or 2 cattle killed by area one night. Then scattered in pond. One was moving, and man went toward it only to find orca eating on carcass.

21 July 1972

Aquidua

Sady Berger - 64 o.p., 4 parda - '46-62.
Parda - few, in pantanal, but bull calves.
Fyda. Saarian, w. of EM.

Tupacatatã - L. Rondon, Aquidua.

21 July 1972. Took 4 p.m. train from Aquidua

to Campo Grande, arriving after dark. Then
took late bus to São Paulo and to hotel.

22 July 1972

Tried to call Nogueira; away. ~~Maya~~ Took afternoon
bus to Rio de Janeiro. To hotel near Playa

Carioca.

Rio de Janeiro

2⁴/₃ July Monday, To Museum. Wrote letters +
answered mail. Met Helmut Sick briefly - no
time to discuss jaguars, but he said had had
some experience with them. Tried to get Marbodo
no luck again. Talked w. Fernando P. again.



UNIVERSIDADE FEDERAL DO RIO DE JANEIRO

_____ Em

Do

Ao

Assunto

(11)

25 July 1972

Rio de Janeiro

at Museu Nacional, talked w. Dr. Jose C. de Carvalho, Dept. Entomology. He is member N Research Council and also works w. IBDF. He thought that idea of 4 mill. ha park in Pantanal absurd, because land valuable & already taken up in forestry. He favored smaller park, 50 thousand ha, with cooperating surrounding forestry. He thought food supply very important, and that only wet areas furnished it.

Trans. Amazon highway & branches, to be developed 100 km. each side. Recent paper by Mario Pavan in Science et Nature, #110, 1972, on Le destin de L'Amazonie, had figure of resulting area. C. thought Amazonia still largely undeveloped, but mature rain forest poor for jaguars because of lack of food.

Smuggling - Bolivia to Santos (under trade agreement), Leticia, Para. Juggling of papers to import. Prohibition of all commerce since 30 April 1971. Any proved had before, can still sell. C. surveyed stocks as of that date - Maracaja (peruian) - 38,507. Isoto (unidentified) - 56,914. O. p. pentodon - 28,278 (= tigris) Once 21,249. Puma - 170. O. p. 7. About 130,000 spotted cats were - not the million rumored. These stocks from Para (mostly short-haired cat, F. tigris), Para, Amazonas, Maranhão.

Brazil

Biological preserves - 6

Caracara	- 80 000 H.	M.T.
Serra Negra	1 100	Pernam.
Sooretama	24 000	Esp. S.
Nova Lombardia	4,347	ES
Corrego de Veados	2 400	ES.

Nat. Parks - 12

Araguara 460 000 ha. - largest.

N. 1/2 of Ilha de Bananal.

Florestas Nacionais 12

Reserva Florestal 9 - One in Carinara,
W. of Belém.

Estac. Flor. de Experimentação - 8

Delegacia in Belém, Manaus.

IBDF, Rio

Antonio Carlos 607 12^o
Publs. - 7th fl.

(2)

25 July 1972

Rio de Janeiro

Sales of skins confiscated, ^{should be} included in IBGE book, Anuario Estadística, said Carvalho.

Same apparently in dept. agriculture - C. thinks should be in Interior. There are state game officials (wardens?), C. says.

Needed - enforcement of Pan American Convention, Bolivia & other countries. There have been skin confiscations in Miami - Scherwitz? -

Bur. Sports Fisheries - from Brazil. Should allow import only with papers, saying raised in creche.

Carvalho will go to College Station, Texas, soon for a stay of one ^{year} month. He has large printed table of skins for on hand when trade stopped, & hopes to finish & publish - way by finished by January.

Went to downtown office of IBDF on av. Antonio Carlos, 607, 12^o, and received copies of game laws. On 7th floor, at Biblioteca, saw bulletins already published and secured some.

26 July 1972. Again to Museu Nacional. Met ^(Dr. Carlos Corrêa Inst. Florestal) de Carvalho, formerly at Museu Escheldi, now with forestry ^{C.P. 1322} dept. in São Paulo. He thought probably jaguar on Marajo, and probably on Morro do Diabo preserve near state line west (?) of São Paulo. | Fernando P. suggested journey at museum in Montevideo as source of information.

Unable to get Dr. Machado, hunter. Wrote a letter to him, & to João João Marjén. Prepared to depart Brazil.

Mario Pavan - Inst. de Entomologie Agricole
de l'Université de Pavie (Italie),
1972. Science et Nature antide, #110.

Do
Ao
Assunto

Ref. -

Anuario Entodistria IBGE

Book -

Viagem por Brasil -

von Spix & von Martius

engraving trap. animals

IBGE office - Carvalho
~~Portaria de Casa, 1972~~

Em

Av. Antonio Carlos 607/12^o
Mr. Odilon.

Plastic relief map Brazil -

Editada Monamat S/A, Sao Paulo.

about 2' x 3'. Colors.

(Made in Italy.)

UNIVERSIDADE FEDERAL DO RIO DE JANEIRO



Journal

27 July 1972

To ~~Buenos~~ Buenos Aires, Argentina

Took Varig flight, scheduled 0030, to B.A. Over an hour late starting. Flew over tropical-blue sea w. scattered white clouds. Then over coast, probably of R. G. do Sul. Sea muddy, a white sand beach, and behind this bar a long muddy coastal lake or estuary. Land dry, mostly rolling grassland, patchy trees, obvious farm blocks, shrubs or trees in band along water courses, meandering rivers. Probably grazing lands. Then overcast before until arrived B.A. No customs inspection. Went to downtown hotel. Telephoned Dr. Crespo for morning appt. B.A. cool. People huddled up in coats. Dark clothes. But hustling along Av. Florida.

28 July 1972. Friday. Went to Museum - out Corrientes to N., then about 5 blocks on Angel ~~Isaacs~~ Gallardo. Dr. Crespo in office - about 65 yrs. Friendly and open. He had rough range maps of the cats at hand.

F. colocolo p. the most common - (I saw many women wearing these furs in coats. Small black spots.) F. geoffroyi - central Argentina; reach Patagonia. F. pardalis - far N., + few. 10-15 yrs. ago, many in Misiones. Fines "El Rey," Salta, has some. Also in Aguacú park. In one city at Boliv. border, 5000 outlet traps sold, C. said. Much hunting of these in Bolivia, which F. miedii - rare, but desired and hunted.

[The handwriting in this section is extremely faint and illegible.]

28 July 1972

Buenos Aires

Jaguete - mostly Misiones, rain forest. Recently some in isolated area of Córdoba. Hunter got about 1000 pesos nuevos for skin. No hunting or ^{commerce in} export of jaguar skins legal (but older imported stock?). Paraguay - no protection of cats or wild animals. Considered tourist attraction. Friend recently saw piles of giant otter skins in warehouse, Paraguay. Formosa - train line goes & goes through dry country - 15 yrs. ago, jag. came to water near train stations. Across N. Argentina, wet in Misiones & E. Formosa, then dry central, humid again in foothills in W. Some in NE corner (?) Santiago de Estero. J.C. suggested area of Oran, near S. point of Bolivia. Rio Colorado area to W. had jaguar. Santa Maria had wet forest. Tartagal, to NE, was important area, now being developed for oil. Sierra Santa Victoria, NW of Oran, good potential area for preserve. (Oran between wet & dry zones?).

Vicuñas - a criadero at Abra Pampa, S. of La Quiaca, had some; also alpacas, llamas, chinchillas. Road W. of S. Antonio de Cabelo had vicuñas 15-18 yrs. ago. Also some in order to W. of San Juan (possibly criadero there).

Habitat destruction great, espec. in Misiones during past 20 yrs. Argentina - one of (?) first in S. America w. Nat'l Parks.

Hecanatom - still many, on fazendas in S. also plenty of rheas. Some & some ranches, pluck rheas & release; sell feathers.

[illegible]

This is a very old map of the
 country, and shows the various
 towns and villages as they were
 at the time it was made.
 It is a very valuable document,
 and one which I have been
 anxious to preserve.

1. History of the
 2. County of
 3. Massachusetts
 4. from 1774 to 1874
 5. by
 6. John
 7. W. Alden
 8. and
 9. others
 10. published by
 11. the
 12. Massachusetts
 13. Historical
 14. Society
 15. 1874

Journal

28 July 1972

Tucuman - Inst. Miguel Lillo. Olog & Esteban, ornithologists. May have field information. /

I then went in afternoon to office of Dr. Juan Carlos Izodoy, former veterinarian, in charge of Caza y Pesca. He issued permits for export of animal skins - these included foxes, raccoons, rhea, eguana (over 1 million some yrs). I saw one for 1,200 F. geoffroyi. Can export skins as long as legal in state province where taken. Joguer prohibited, however (unless foreign origin proven? - also, fur coats). / Office on av. Belgano, no. 845, 8^o; hours 1 p.m. - 7 p.m. Pleasant man, about 65, good English, voluble. He had published book on Fauna Silvestre, 1963, Consejo Federal de Inversiones, Republica Argentina. Compilation of info. on species species + all laws up to then, in Spanish. Now out of print. He hopes to bring up to date & republish. / To take and export animals, must get permit from Izodoy, then from states where to be hunted, then get animals, then permit from Izodoy. Some fees paid, but do not go into wildlife dept. / Izodoy also said habitat change had been great, with increased crops, oil development. He had little biological data on cats. He listed some tanneries & fur dealers in Rio area, which I might visit. He knew my name from vicuña work. (Isardner Bump had worked in Argentina - he had left equipment for game bird research station near B.A. (Marcella?). He thought Paraguay the

Journal

28 July 1972

Buenos Aires

supplier of cat skins. He also thought probably jaguar/oculat in Iguazu park. The province game officials in Misiones (& other prov.?) are in the Tourism dept. (Dir. Turismo); I got address of last man known in office at Posadas, Misiones.

On Calle Florida and vicinity, we saw many women wearing coats of F. geoffroyi, ocelot (gato onza), jaguar, or imitations of same. Some imitations of synthetic pile; others are of puma with printed black markings. We visited a few stores where coats were sold. Some made of pelt of feet or bellies of jaguar, many pieces sewed together. One fine large ocelot coat seemed to need 10 skins, well matched for color and spotting. At Dennis Furs, Embassy Center arcade near the Plaza Hotel, jaguar coats at over \$2000 U.S. eq., ocelot about half that, short ocelot coats \$5-600, gato montes less. There were at least 10 coats on display on racks. This company did own manufacture. They ~~have~~ knew of no restriction on taking coats into U.S. There must be thousands of ocelot coats, hundreds of jaguar, in central Buenos Aires.

29 July 1972. Saturday. We took train from Plaza Constitución to La Plata, about one hour, to visit student interested in jaguar studies, Miguel Angel Ará (Calle 40, no. 1397). He had compiled much info about jaguar in Argentina, from govt. publications and hunting-fishing magazines (Diario, Armas y Tiro (still publ.), & Camping (discont.)).

Journal

29 July 1972

Buenos Aires
+ La Plata, Argentina.

But he had not surveyed specimens in museums, and had not actually been to any of the places where he wanted to work. He thought there was a preserve of about 2 million hectares in W. Chaco, potentially good for study. He knew of Jiriney in Montevideo. Had not been to Iguazu. But his authority + card files impressive. About 25 yrs., tall, black bearded, chain-smoking and somewhat nervous. We visited La Plata Zoo with him - one old ♀ jaguar - cages rather dirty, poor repair. But good membership people on Saturday. Also visited the La Plata Museum, where Cabrera had worked. Old ornate building, interior circular arrangement. Stuffed mammals & small habitat groups (Logothamnus, Cavia, Decapoda), halls of articulated skeletons. Research quarters & collection in basement floor, not open today. ~~Peter~~ Ara said there was a preserve for Blastoceros in prov. of Entre Rios.

Camping mag., July 1969: 8-93, article: En torno de tigre y de gavilán. Por Raul Leonardo Cerman. + p. 94, no author: Como se caza un tigre en 1969. Said that in Paraguay use small goat for bait, tied to tree. When jag. comes, put new bait, hide in pit w/ helper. At night when jag. comes (odor, cries of goat), helper illuminates and hunter shoots. A safari co. at Col. Eugenio Saray - camp 30 km. distant. 1 man for 14 days cost \$2000, + \$100/tigre.

$$x \in \mathbb{R}^n \quad y \in \mathbb{R}^m \quad z \in \mathbb{R}^k$$

Let the n th term be a_n . Then $a_n = a_1 + (n-1)d$.
 $a_1 = 1$, $a_2 = 3$, $a_3 = 5$, $a_4 = 7$, $a_5 = 9$, $a_6 = 11$, $a_7 = 13$, $a_8 = 15$, $a_9 = 17$, $a_{10} = 19$, $a_{11} = 21$, $a_{12} = 23$, $a_{13} = 25$, $a_{14} = 27$, $a_{15} = 29$, $a_{16} = 31$, $a_{17} = 33$, $a_{18} = 35$, $a_{19} = 37$, $a_{20} = 39$, $a_{21} = 41$, $a_{22} = 43$, $a_{23} = 45$, $a_{24} = 47$, $a_{25} = 49$, $a_{26} = 51$, $a_{27} = 53$, $a_{28} = 55$, $a_{29} = 57$, $a_{30} = 59$, $a_{31} = 61$, $a_{32} = 63$, $a_{33} = 65$, $a_{34} = 67$, $a_{35} = 69$, $a_{36} = 71$, $a_{37} = 73$, $a_{38} = 75$, $a_{39} = 77$, $a_{40} = 79$, $a_{41} = 81$, $a_{42} = 83$, $a_{43} = 85$, $a_{44} = 87$, $a_{45} = 89$, $a_{46} = 91$, $a_{47} = 93$, $a_{48} = 95$, $a_{49} = 97$, $a_{50} = 99$.

It is a very good idea to have a plan for the future.

1891

المجلس الأعلى للدراسات والبحوث

10. The number of people who are not in the group is 10.

Spring - New York - 1880 - 1881

[Faint handwritten text at the bottom of the page]

At the end of the day, the weather was very warm.

.....

[Faint handwritten text]

1880-1881

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

Handwritten text, likely bleed-through from the reverse side of the page.

... ..

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

of the same kind as the other two, but the

... and ...

... ..

1. The first part of the text is a list of names and dates, which appears to be a record of some kind. The names are written in a cursive script, and the dates are in the format of day, month, and year. The list includes names such as "John", "Mary", "James", and "Elizabeth", and dates such as "1810", "1811", "1812", "1813", "1814", "1815", "1816", "1817", "1818", "1819", "1820", "1821", "1822", "1823", "1824", "1825", "1826", "1827", "1828", "1829", "1830", "1831", "1832", "1833", "1834", "1835", "1836", "1837", "1838", "1839", "1840", "1841", "1842", "1843", "1844", "1845", "1846", "1847", "1848", "1849", "1850", "1851", "1852", "1853", "1854", "1855", "1856", "1857", "1858", "1859", "1860", "1861", "1862", "1863", "1864", "1865", "1866", "1867", "1868", "1869", "1870", "1871", "1872", "1873", "1874", "1875", "1876", "1877", "1878", "1879", "1880", "1881", "1882", "1883", "1884", "1885", "1886", "1887", "1888", "1889", "1890", "1891", "1892", "1893", "1894", "1895", "1896", "1897", "1898", "1899", "1900", "1901", "1902", "1903", "1904", "1905", "1906", "1907", "1908", "1909", "1910", "1911", "1912", "1913", "1914", "1915", "1916", "1917", "1918", "1919", "1920", "1921", "1922", 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the first of the series of the "The Great Gatsby" series.

2. $\frac{1}{2}$ of the total population is under 18 years of age.

the in General was much more for the

of the whole thing, and the whole thing is the

Long (1990) and others have shown that the use of a single

...the ...

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 3, 1862. It is a copy of the original letter, and is signed by Abraham Lincoln.

... ..
... ..

For the purpose of this study, the following hypotheses were formulated:

Journal

29 July 1972

La Plata, Argentina

article figures square of 110 km.² w. C. Bary at center of W. side, bottom north of Filadelfia, E. side to W. of Rio Negro, as jag. hunting area. / Desia, Oct. 1960, no. 250, p. 64. Los tigres de Pampacayo. Dr Rafael C. Igostai (240.?), "continued" - a trip of 1930's. Apparently much less in revister than in Venezuela.

30 July 1972

Sun.

Buenos Aires

Visited various areas including zoo. ^{Some deep-sea,} ~~One old rather fat~~ & juv 2 cheetahs, afr. lion, tiger - but jaguar? ocelot? Cages old, rather run down. Some elaborate old cages with scallops + gingerbread on top. Many people. Near Playa d'Italia. Dolichotis running loose on lawn, where tame, sat in open. Sauro quaya in pen.

31 July 1972. Monday. Went to fur tannery of Deerfield (Bahia Blanca 1350, out from Primera Junta), where talked w. president, Juan A. S. ^{Presidente} ~~Member~~: Assoc.

Indust. de Aprestos y Tintoreria de Piel. He said taking of jaguar + ocelot prohibited for last 2 yrs. or so in Argentina, but some imported legally, others not. This company dresses furs for others - some hides even sent from U.S. so has no interest in continuing supply of cats - do about 100 jaguars + 1000 ocelots per year. Cats mounted - common - 1971, about 1850 raw to ~~be~~ exported by country (figures in Cuero Lano, ^{Vol. 136.} Ano XXIV, Feb. 72, + other sources. In 5 mos. of 1972, 3,763 exported - 1563 Holland,

1890

1890

The first of the year was a very dry one, and the
 crops were much injured by the drought. The
 weather was very hot, and the crops were much
 injured by the drought. The weather was very hot,
 and the crops were much injured by the drought.

1890

1890

The second of the year was a very dry one, and the
 crops were much injured by the drought. The
 weather was very hot, and the crops were much
 injured by the drought. The weather was very hot,
 and the crops were much injured by the drought.

1890

1890

The third of the year was a very dry one, and the
 crops were much injured by the drought. The
 weather was very hot, and the crops were much
 injured by the drought. The weather was very hot,
 and the crops were much injured by the drought.

Journal

31 July 1972.

1200 EEU, 1000 England. Price cats down now. Was \$5-600 for untanned jaguar in Europe a few yrs. ago. Usually 30% waste in poor skins. About 10 yrs. ago, improved cat fur through "reinforcing" - dyeing slightly blue to offset yellow colors. Trade agreement - sort of common market - w. Parag., Bolivia, Peru(?), so free exchange hides w/o duty (Andean Common Market?). Export figures for hides + furs in ^{compiled by} Comara General de Comercio en Frutos del Pais, Av. Mitu 360, Aquilonada (Tel. 22-7411, 4408). Most tanning of guaranos - also much fox, nutria. Suggested see Dave Newman, HIATP, ^(suburb) Aquilonada, for statistics (Aquilonada; 22-4622-7302). | In afternoon, again visited office of Juan Carlos Izodoy, Director of Caza y Conservacion.... Internat'l conventions - none on cats, but recent one on vicuñas. Old general convention of 1940's. Also one on whales. Exports - few of spotted cats last two years; last gato onza export, skins from Paraguay, Oct. 446/1971. Gato marten - export often in thousands. Rare for ^{cat} skins to be imported then exported, tho done for nutria + some others (some from U.S.A.). Price of gato onza (ocelot) down since 2 yrs. ago. Country had once been ~~very~~ ^{very} influential, had 40 inspectors, one in each ^{naïl} tannery in BA (7-8 yrs. ago). Also high official in ^{Latin} first S. American country to have (after U.S., Canada). Now had no people, merely self + secretary. Had proposal developing for single national game law to set

Journal

31 July 1972 Mon.

Buenos Aires

brood outliner; this would be implemented + expanded within each province. This is still in preparation; has first draft. / also, in 1965 had proposed a Convention Endemismos for threatened + migratory species at some meeting, but no acceptance. / Iguazu - about 100 000 A. on Argent. side. Gaday said much poaching in park by Brazilians. He will give me introductory letter. / There is a Comité Argentino de Conservación de la Naturaleza, of which Gaday is now president (Av. Santa Fe 1145). O. Pearson + other N. Americans listed as consultants.

1 August 1972, Tues. Buenos Aires

went to Museum + met ~~Dr~~ Alfredo Ximénez, of Montevideo, mammalogist working on taxonomy of F. geoffroyi + pandalis. Was with Van Belden + AMNH sp. in Beni, N. Bolivia, a few yrs. ago, in area NE of Magdalena. Said much trouble of jaguar + other cats there, tho saw none. Saw few jaguar in Paraguay, tho he thought, as Chaco too dry. Ocelots in E. central area, ^{from} Fuerte Olimpio + to east of Km. 145, Campo Esperanza. Also in area of Rosario, near Mato Grosso border NE of Asunción. Hugo Pascoe now at Porto Iguazu; had run "tigie" safaris in Chaco. X. thought unreliable data, many commerciante. (Father of P. w. dead jaguar, cliente, in an arm store ^{on} ~~at~~ ⁱⁿ Playa San Martín). X. said F. pandeviana a synonym of tigrina. F. g. paraguayensis, all over Uruguay, apparently often

with $\frac{1}{2} \pi$ is

[Faint, illegible handwritten text]

3. *Phragmites australis* (Cav.) Trin. ex Steud.

1. Explain the importance of the following:

2. The second part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $t \rightarrow \infty$. It is shown that the solutions of the system (1) tend to zero as $t \rightarrow \infty$ if and only if the matrix A is stable.

1. *Protophylla* - a genus of the family *Protophyllidae* in the order *Protophyllales* of the class *Protophyllales* in the phylum *Protophyllales* in the kingdom *Protophyllales*.

1899

1000

...the

1870

تاریخ: ۱۳۸۵/۰۵/۰۵

1. *Chlorophyll a* (Chl a) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue-violet and red-orange regions of the visible spectrum. Chl a is essential for the light-dependent reactions of photosynthesis, where it converts light energy into chemical energy.

[Faint handwritten notes at the bottom of the page]

11/11/11

2. The second part of the paper is devoted to the study of the asymptotic behavior of the solutions of the system (1) as $\epsilon \rightarrow 0$. It is shown that the solutions of the system (1) converge to the solutions of the system (2) as $\epsilon \rightarrow 0$.

1. The first part of the paper is devoted to the study of the properties of the function $f(x)$ defined by the equation

2. Theorem 1.1

1871

Journal

1 August 1972

Buenos Aires

eats food in trees, then feeds on ground, as shown by stomach contents. Also climbs eucalyptus trees to feed on small birds, such as parrots. weidii, which reaches S. limit in N. Uruguay, espec. two areas, feeds in trees; more strictly arboreal. No habitat diff. from geoffroyi olivaceus. F. colubus, feeds ground, rarely climbs Uruguay - many melanistic F. geoffroyi. ~~X. thinks F. g. (= gato montes)~~ X. had tables & figures of measurements F. g., rough tables of F. pardalis. Was going to São Paulo for long stay, to work on cats. X. said many hunters of cats in Paraguay; much use of steel traps, also stick traps. X. thinks F. g. now more common in Uruguay than 10-15 yrs. ago, when he first trapped for them. He said some caught in daylight, so not strictly nocturnal. Thinks F. g. can breed twice a year, 3 cubs, so high breeding potential. But difficult to keep & breed. Melanism may be increasing - black furs not desired by public - about 10% of F. g. are melanistic. / X. says many gato montes coats in Barro Colorado, few of fogies or ocelots. Some officials of govt. want to introduce exotic animals, including leopards, for hunting. Hard to explain difficulty w. exotics (Isidoro has also had much pressure to introduce exotics for hunting, tourism). In Uruguay, only protected species is Arctocyon, of which regular harvest of about 16 000 per yr. X. energetic & like personable.

Journal

1 August 1977

Buenos Aires

I looked over J. Crespo's range maps for Argentina.

geoffroyi - 4 subsp.; all over Argentina to about 49° S., including open country. F. guinea - along Andes + Chile from about 40° - 48° S. jacobita - Andes, S. to about 32° (a little N. of Mendoza). pardalis - from (formerly S. into Córdoba). E. of Salta, S. to Corrientes, to about 29° S. In Brazil, in Sta. Catarina but not R. G. do Sul. F. tigris - NE corner Salta - W. boundary to E. of pardalis. SE boundary S. of pardalis, into R. G. do Sul in Brazil. tigris wiesii - like pardalis but in E. farther S. than tigris or pardalis, into N. Uruguay. yagouaudi - S. to about 41° , subsp. extending range to S. Mostly farther inland than pardalis. Jaguar - about 65° long. live in W., S to spot along river in N & Córdoba (5-6 yrs. ago), generally to about 27° S., including N. Misiones. F. colnaghi - all over Uruguay + most of Argentina. / X. had copy of proposal by P. Benie, U. Laa, to study all kinds of spotted cats in Bogaerou, Paraguay, by radio telemetry + other means. Too all inclusive for 2 yrs., especially in difficult country (Guaraní language, mosquitoes, disease). / Ximénez also talked w. Arva; I hoped would help him get started on limited project. Bob Braumell, working on dolphins, with funds from Smithsonian + Nat'l Geographic, accompanied Ximénez. / Mar talks w. Crespo. Stayed in downtown hotel.

[illegible]

1752-1753

[illegible]

Journal

2 August 1972. Wed.

Buenos Aires

Visited Argentifera, 3012 Ríndola. Stacks of tanned skins, mostly sheep but also ^{fox,} guinea pigs, weasels, skunks, Logostomus. They export skins & garments. President, Jacobo Feuerman, talked with me in Spanish, & was hospitable. Probably about 65 yrs. His firm processes about 10,000 skins goatskins (F.g.) per yr.; then about 20,000 used all fur per yr. All stamped by govt. after tanned & inspected. Long coat (tapado) requires about 20 g. material, 10 out, or 3 goatskin. Think synthetics will never hurt fur market much - ~~but~~ ^{people} prefer natural product. Also, sheep fleeces can be dyed & printed to resemble anything else. He serves 5 tanneries. Seefeld is largest tannery! Says some foxes taken by poisoning carcasses - no commercial hunters, but poor people, sell to local store (baliche). Rats mostly from cradles. Think not many goats or jaguar coats in B.A. - too expensive. ^{Many} More in Germany, Switzerland. Much talk about markets & prices, which I did not get. /
 At a neighboring ^{leather & fur coat} retail store, talked w. Mr. Cordeiro, who thought synthetics were the saving thing and that skins of wild animals were continually harder to get. But also thought that women won't "lo que no hay," so natural furs would persist. Natural coats too expensive for most Argentinians. / Again visited today. He confirmed that no commercial skin hunters,

1600 - 24 1/2" Length - 20

The first of these is the fact that the
 system is not a simple one. It is a
 complex one, and it is not possible to
 understand it without a knowledge of the
 principles of the system. The second
 fact is that the system is not a
 simple one. It is a complex one, and
 it is not possible to understand it
 without a knowledge of the principles
 of the system. The third fact is that
 the system is not a simple one. It is
 a complex one, and it is not possible
 to understand it without a knowledge
 of the principles of the system.

Journal

2 August 1972

Buenos Aires
"criollo"

and that most animals taken by poor individuals, by
all means possible including knives & bare hands.

His Fauna Silvestre volume, 1963, gave exports of gato
montes over 1941-1960 period as 667, 743 (562,120
(=30,000/yr.)
from 1941-50), gato onza 8,864. For 1971,
ex export of gato montes was about 7,300.

Baliche - small store - exchange skins for goods -

Later talked w. Mr. Fellman (well?) at Maximilian
Fur, in Plaza Hotel. Some fine gato montes coats,
put together so look like one piece w/o seams.

Needs about 20 ^{or more} skins. For coat use 15, the can
do with 10-12. Not manufacturing cat coats at
moment. Retail sales; not export. Sells about 5
jaguar coats per year. Thinks synthetics
will not replace natural furs. Like others,
emphasized poverty of men hunting skins,
& that trade helped them. He thought only
large parks could preserve animals. Also
much contraband, & exports inside of boxes
of wool. He thought that younger generation
little interested in luxury & fine clothes, &
this would diminish trade. But Germany
wealthy & many fur coats there. The
journal PC/2, in German, featured stylish
photos & ads including jaguar
coats. Center of trade at Frankfurt. Said
many fur dealers in U.S. put out of business
by labor unions. Fur worker here may get \$4/day.

Journal
1871-1872

and now comes the day when the
sun is shining brightly and the
birds are singing.

The first of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The second of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The third of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The fourth of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The fifth of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The sixth of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The seventh of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The eighth of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The ninth of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The tenth of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The eleventh of the month is a fine day
and the sun is shining brightly and the
birds are singing.

The twelfth of the month is a fine day
and the sun is shining brightly and the
birds are singing.

Journal

2 August 1972

Buenos Aires

Continued to see ^{tanned} ~~fresh~~ outlet pellets in windows of fur wholesale stores, tho essentially no official imports.

3 August 1972. Returned to Isadaya's office and got letter of introduction. His assistant (♀) said now only 6 people in federal game & cons. dept., including only one inspector. The badly need support thru influence on the Minister of Agriculture & Cattle. I read Isadaya's proposal for a federal ^{wildlife} game law. First point was that wildlife now belongs to "nada" under legal code; should be property of the public. Wants to finance work thru taxes on guns, ammo, & hunting eqpt., part of casino income, other funds. Maybe UCN could help with plane & support. In 1965, Isadaya had presented at a convention a convenio for all South America for wildlife protection, investigation, cooperation, coordination - but no response. Working & fighting for wildlife w. little support. / Went to Museum & looked at fossil bones of *Megatherium*, glyptodonts, other huge edentates of past. *Myiodon* hair tuft about 1 sq. ft. looked fairly fresh. Again met Ximenes, who had suggested to Arza that work on another species of cat, perhaps jaguar as possible. Crespo told me of expansion of *Oryzotrogus* in San Juan area of W. Argentina. Also he said foxes hunted hard, as agricultural pest, and now scarce many areas where formerly abundant. Prepared for departure.

4 August 1972. Friday. Flew to ^{Cuenca} Montevideo. up coast first, then up river to W. Over rolling grazing lands, dry, but spots w. many small round ponds. Inland, grass greener - then more cultivation, palm trees in fields, as reached Acarión.

Journal

4 August 1972

Asunción, Paraguay

Asunción about 350,000, in country of $2\frac{1}{2}$ million.

Fine homes on edge town. Some modern buildings such as bank, high rise hotel, in center town. Prices 50-100% higher than Argentina (offer. chick. 126 g to \$1, but can get 136). Went to Banco Interamericano de Desarrollo, met Mr. Douglas, who called Phil Myers Jr. (MVZ grad. student). Myers living in father's large house & took us there. He has collected rodent teeth, in area and hopes to do grad doctoral work on resprited teeth in comparison w. N. America.

Fide Myers, 58 part Paraguay long cultivated, N.E. still undeveloped.

Asunción, Paraguay

5 August 1972. Sat. Visited Robert Eaton, in office.

Tall, 65 yrs. ~ 20. Had ranch of 109,000 ha. in chaco to NW of Asunción, nr. San Juan de Galazán. At first he said that cattle & jaguars didn't mix, so had to build the jaguars. About 10 per year taken on his ranch, & no apparent decrease. He said they took good beef, usually 1-2 yr. olds. But puma worse, or got into corral & killed all sheep. Eaton 42 yrs. in chaco area. In N., where brush increasing, he thought jaguars increasing. Philadelphia a center for hunters & collector skins. A menagerie colony to E. of there.

Therion Hill boferia had searched country & settled on area nr. Cull. C. Saray, perhaps because more open than near E. border. Usually clients got their jaguars, tho rather small. Eaton said if someone jumped jaguar, would try to rope him. Personally shot jaguar w. a big pistol. Said had only seen 2 jaguars when

August 1932

Journal

Monday, August 1st. A very hot day, with a strong wind from the south. The temperature was 85° at 10 AM, and 95° at 4 PM. The wind was very strong, and the sun was very hot. I went for a walk in the park, and saw many beautiful flowers. The children were playing in the sand, and the dogs were running and barking. I saw a very large snake, and a very small one. I also saw a very large bird, and a very small one. I saw a very large tree, and a very small one. I saw a very large house, and a very small one. I saw a very large car, and a very small one. I saw a very large boat, and a very small one. I saw a very large ship, and a very small one. I saw a very large plane, and a very small one. I saw a very large train, and a very small one. I saw a very large bus, and a very small one. I saw a very large truck, and a very small one. I saw a very large car, and a very small one. I saw a very large boat, and a very small one. I saw a very large ship, and a very small one. I saw a very large plane, and a very small one. I saw a very large train, and a very small one. I saw a very large bus, and a very small one. I saw a very large truck, and a very small one.

Tuesday, August 2nd. A very hot day, with a strong wind from the south. The temperature was 85° at 10 AM, and 95° at 4 PM. The wind was very strong, and the sun was very hot. I went for a walk in the park, and saw many beautiful flowers. The children were playing in the sand, and the dogs were running and barking. I saw a very large snake, and a very small one. I also saw a very large bird, and a very small one. I saw a very large tree, and a very small one. I saw a very large house, and a very small one. I saw a very large car, and a very small one. I saw a very large boat, and a very small one. I saw a very large ship, and a very small one. I saw a very large plane, and a very small one. I saw a very large train, and a very small one. I saw a very large bus, and a very small one. I saw a very large truck, and a very small one. I saw a very large car, and a very small one. I saw a very large boat, and a very small one. I saw a very large ship, and a very small one. I saw a very large plane, and a very small one. I saw a very large train, and a very small one. I saw a very large bus, and a very small one. I saw a very large truck, and a very small one.

Journal

5 August 1972.

Asunción, Paraguay.

not hunting their w. dogs. (Tiger Hill S. usually used a goat for bait.) Eventually Cator showed out and invited us to come to his ranch, also said would introduce to managers other ranches. He had received letter from P. Berrie, who expected to arrive about Aug. 17. apparently some oil development in NW Paraguay. E. said owl hunter in N.E. also that even manumita had decided to kill jaguars!

With Phil Myers, went to small ranch on edge town & set up

3 nets near clump of grass & citrus trees. Took 2 Fulmaria refusa,
 (1 spec.) (1 spec.)

3 Zonotrichia copenensis, 2 juv. thrasher, 2 grackles (?). By

about 8 p.m., 3 bats (P.M. species.).

Continued in
small notebook.

C. B. KOFORD

1972

1973

Catalogs

#2019 - #3032 (1963)

#4456 - #4502 4531

1.

1.

verse for coll. note

Koford

3037-3319 '67 Peru

3811-3881 '68 Mexico

3901-3920 } '69 Mexico 3 July

4173

4333

gap

4335

4001-4172

69 Peru

4341-4454

70

Specimen Catalog

Peru 1963

L. 12°-25' S

λ 73-45' W

Mouth Rio Santa Rosa
On SW side Apurimac R.
(actually, then, Dist. Ayacucho)

Date CBK
July No.

Luisiana, Apurimac River, 1900 ft., Depto. Cuzco, Peru

- ♀ vag. imp. Top or cut bank edge river bed.
15 2019 *Oryzomys*? 172-96-20-11, 12±gms.
T. 4 mm. long. Same site. Stom. 3/4 full, white.
- 15 2020 ♂ *Oryz.*? 163-70-22-13. Fat, 35gms.
♀ 19st. ov. 1 mm. Tree nr. river bed
- 14 2021 Tyrannid *Myiarchus cephalotes*? 30gms.
♂ T. 7 mm. long *Hydropsalis cinnyricerca*
- 14 2022 ~~Chondestes~~ Brush edge sand, on river bed.
♀ 19st. ov. 1 mm. Rocks, brush, in river bed.
- 14 2023 (*Caprimulgus*) *Hydropsalis* Beetles, stomach, full 50gms.
♂ test. 10 Beetles, stomach, full.
- 14 2024 *Caprimulgus* Rocks of flat river bed. 65gms.
♂ T. 6 mm. *Galbula cyanescens*
- 15 2025 Jacamar Tree near river, edge woods. 30gms.
♂ T. 19x10 Edge bushes near river bed.
- 15 2026 *Sylvilagus*? 347-20-75-52, 875gm.
♀ ov. n.e. 1mm. juv. *Thyrothorus coraya*
- 16 2027 *Thamnophtus*? Thick bushes nr. river. 21gms.
♂ T. 11x7
- 16 2028 ^{cis}
~~Cacique~~ *cela* Tree near river edge. 105gms.
♂ T. 5 mm.
- 16 2029 *Trogon viridis* Mod. deep forest, edge trail. 100gms.
♂ R. t. 12x4 *Ploceus menstruus*
- 16 2030 (*Amazona*?) Bare tree, edge forest. Crop-green flat seeds. 245gm.
♂ T. 11 *Nyctidromus albicollis*
- 17 2031 *Caprimulgus*? Ground, leaves, coffee edge forest. 61gms.
♂ T. 2 mm. 1mm. *Ploceus menstruus* *Thamnophtus dolatus*
- 17 2032 *Thamnophtus*? Bush by trail, singing, nr. Coffee grove. 30gms.
Ara couloni
- 17 2033 parrot Tail tree, open forest. 275gm.
No emb. or yng. Coffee grove nr. papayas, foris sb.
- 18 2034 ♀ *Didelphis* 720-360-58-44 925gm.
♀ juv. Dr. 4mm. *Galbula cyanescens*
- 18 2035 Jacamar. Deep forest by creek. Skull 2/3 ossif. 29gms.
♂ T. 4. *Myrmoborus leucophrys*
- 19 2036 Formicariid Deep forest undergrowth 21gms.
♂ T. 36
- 19 2037 *Dasyus* Shot, daylight. 885-365-111-42
Deep forest tangle undergrowth 10 1/2 w/ any visc.
- 19 2038 ♀ lact. Deep forest nr. stream. One of 30±.
Saimiri sciureus Shot by Kerpcke. 700-420-03-27, 875gms.
- Ovaries - 4 black (blood) spots L., 1 R. Mod. lactal tissue.
- 20
19 2039 Formicariid = ? 21gms.
♂ T. 4 mm.
- 20 2040 (*Campephilus*?) *Dryocopus lineatus* 220gms.
♀ no emb.
- 19 2041 Tiny phyllostomid 48-0-9-11
♂ T. 5
- 19 2042 Phyllostomid. Net in clearing by buildings. 60-0-13-15. R wing memb. torn.
♀ 1 emb. C-R 12.
- 19 2043 " " 66-0-12-15. 18gms.
- 19 2044 ♀ 1 emb. 4mm. 29-92-16-16-23, 29gms.
Noctilionid?

Koford
1963

Specimen Catalog Peru 1963

Date	CBK No.	Luisiana, Apurimar River, Dpt. Cuzco, Peru. 1900 ft.		
July				
19	2045	♀ 1 emb, C-R 20. <u>Dirias</u> ?	Netted, ^{evening} night	93 103-15-16-21, 28 gms.
19	2046	♀ 1 emb, C-R 22 <u>Dirias</u> ?	Netted, evening	89-14-15-20, 30 gms.
21	2047	♀ 1st. ov. 2 <u>Praya</u>	<u>Praya cayana</u> (Same site as same <u>Dide/whis</u>)	, 115 g.
21	2048	♂ t. 15 4-eyed possum	Trapped, dark forest.	586-318-42-34, 400g
21	2049	♀ 1st. ov. < 1 mm. Tanagers, green	<u>Calospiza schranki</u> Bush in dark forest.	20g.
22	2050	♂ t. 4 <u>Carollia</u> ?	Net, night.	69-0-13-15, 20g. Prob. juv.
22	2051	♀ 1st. ov. 1. Dendrolaptid	<u>Hylocistis subulatus</u> Molting. Cranium 4/5 ossif.	30 gms.
22	2052	♂ t. 9 mm. "	<u>Xiphorhynchus guttatus</u> Lost many feathers.	
22	2053	♂ t. 3 Formicariid = ?		
24	2054	♂ t. 9 Dendrolaptid	<u>Lepidocolaptes fuscescapillus</u> NE side river, deep forest hill.	31 gms.
24	2055	♂ t. 3 <u>Carollia</u>		66-0-14-16, 22 gms.
24	2056	wh. dors. str. ♀ no emb. ♀ <u>Phyllostomid</u>	Netted in clearing nr. river.	60-0-10-15
24	2057	♂ t. 12 Caprimulgid	<u>Hypodactylus clinacocerca</u> Shot, stony flat by river. Stomach, large beetles.	30 gms.
24	2058	♀ 1st. ov. 3 Caprimulgid	<u>Nyctidromus albicollis</u> (Paras.)	70 gms.
24	2059	♀ 1 emb. C-R 6 Phyllostomid		62-0-13-14, 20 gms.
24	2060	♀ No emb, 4 mm. st. bulge. oth. "	(Paras.) Net, clearing at edge brush.	63-8-14-17, 16 gms.
24	2061	♀ "	"	69-9-13-19, 17 gms.
25	2062	♂ t. 1 Flycatcher	same net. <u>Myiophobus fasciatus</u>	
25	2063	♀ 1st. ov. 3 mm. <u>Ortalis guttata</u>	p.m. same <u>cap</u> green leaves.	350 gms.
26	2064	♂ t. 8 (not an l.) <u>Ortalis guttata</u>	a.m. same <u>cap</u> empty.	400 gms.
25	2065	♂ t. 1 mm. Hummingbird	<u>Hylocharis rostrata</u> (R hum. broken)	
27	2066	♂ t. 7 Phyllostomid	Net, open grass, edge clearing.	71-10-12-18, 20 gms.
27	2067	♀ no emb ", same		70-8-13-17, 16 gms.
27	2068	♀ ", same.		72-10-14-19, 18 gms.
27	2069	♀ 1 emb, C-R 16 Phyllostomid, other		58-0-9-14, 20 gms. (stand.)
27	2070	♀ "		65-0-12-15, 19 gms. (stud.)

1700

East Tackle

Specimen Catalog

CBK
No.

29 July 1963

1/2 mi. NW Ayacucho, Dpt. Ayacucho, Peru. 9700 ft.

♀ no emb.

under pepper bush.

2071

Eligmod.?

138-71-19-14, 12 gms.

♀ No emb.

2072

Phyllotis

210-111-26-21, 30 gms.

♀ no emb.

2073

Phyllotis

208-104-26-22, 20 gms.

♀ No emb.

Rock pile

2074

Phyllotis

246-134-28-24, 45 gms.

high dry

The above 4 on SE slope; rock piles + walls, scattered pepper bushes, cactus, short grass.

30 July 1963

Tapuna Pass, 6 mi. NNE Tambo, Dpt. Ayacucho, Peru. 13000 ft.

♀? partly eaten

back broken

2075

Phyllotis pictus?

215-100-20-20, 35 gms.

In stom. punale Vaccinium-like berries, chupuro, ~~Mr. Kiwincha~~ bush.

Red chigger can. Under boulder among cushion plants, mod. slope. Partly eaten.

No emb.; ut. 2 mm. wide

2076

♀ Akodon boliviensis

163-72-29-12, 2.2 gm.

Stom 1/4 green. Rest seeds, insect.

Under Kiwincha bush, rock-grass steep slope, some moss. Red chiggers can.

1 August 1963, 2 1/2 mi. NW of Pass [12300 - 12700 ft.]

Ut. bulges, 1 ea side, 3 mm long.

Fat. Skull broken.

2077

♀ ^{Neotomys} Akodon ebrissus

184-78-24-15, 42 gms.

sp. m., hole at base stone house wall.

2078

♀ Eligmod.

130-62-18-15

Base boulder, grass slope, 12700 ft. NW slope.

No emb.

2079

♀ Oryz.?

215-124-25-14, 21 gms.

Thick grass w. rocky bushes, by stream. 12300'.

2080

♀ same.

192-113-26-14, 16 gms.

2081

♂ Phyllotis

179-89-20-17, 22 gms.

Base rock wall, dry slope, short grazed grass. 50 yds. from stream.

2 August 1963

3 mi. (est.) N. Tapuna Pass, Dpt. Ayacucho, Peru. 10700'.

L. 6 x 4

2082

♂ Phyllotis

162-84-19-16, 18 gms.

Base tree in opened woods, near rocks. 15' tree. Mossy, ferny, in shade. NE slope.

2083

♂ Akodon?

198-97-24-14, 32 gm

2084

♀ Akodon?

200-98-24-14, 30 gm.

The above 2:

Dark moss-fern patch green woods, 15' tall. Mr. rocks, sticks, on ground. NE slope.



Koford

4 Aug.

3033

♀ juv. ? Tachyphonus rufiventer

Specimen Catalog
Peru 1963

1963

4 Aug.

2085

Luisiana, Apurimac River, Dpt. Ayacucho, Peru. 1900 ft.

Lizard. Floor of forest.

2086 ♀ 1st. ov. 3 mm.
Tropen

Molting; 60 gms.

2087 ? Juv.

Habia?

Loud chirp, single.
In flock of turnarids?

32 gms.

Floor dark forest, bush to bush.

2088 ♂ t. 6
Tanager

Tachyphonus rufiventer

Tree, mod. dark forest.

2089 ♂ t. 10
dendrocolaptid

Lepidocolaptes fuscicapillus

Tree trunk, nr. ground, mod. dark forest.

30 gms.

2090 ♂ t. 6
Parrot

Eupsittula ventralis

Opened tall tree forest

112 gms.

5 Aug. ut. bulge 6 mm.

Wgs. 280.

51-0-9-14

2091 ♀ Phyllostomid

Netted dark forest (by H.W. Koenig).

12 gms.

4 Aug.

2092 ♂ t. 1
Hummingbird

Chrysomitris oenone

5 Aug.

2093 ♂ t. 4
Woodpecker.

Melanerpes formicivorus

Open tree by river.

62

52 gms.

2094 ♀ 1st. ov. 1 mm.
Monasa nigrifrons

80 gms.

2095 ~~Monasa~~

6 Aug. ♂ t. 4

2096 Troglodytes musculus

12 gms.

2097 ♂ Spine-tail t. 3
~~troglodytes~~

Synallaxis azareae

Edge tall grass patch.

19 gms.

Sex? Skull 1/3 ossif.

Xiphorhynchus guttatus

2098 Dendrocolaptid

climbing trunk, edge clearing.

54 gms.

7 Aug. t. 2

Todirostrum?

2095 ♂ Flycatcher

Kuca patch.

10 gms.

♀ a.n.e. Skull 8/10 ossif.

2096 ♀ Finch

Molting; tail mostly gone.

11 gms.

3000 ♂ t. 6
Swallow

Pygochelidon cyanoleuca

Carrying insect to hole in thatched roof.

3001 ♂ t. 2

Donacobius atricapillus

Edge clearing.

39 gms.

3002 Otus watsonii

Mod. deep forest.

116 gms.

8 Aug. t. 9

3003 ♂ Thraupis

Calospiza schrankii

21 gms.

Sex? Skull 2/3 ossif. Juven.?

3004 ~~Furnaria~~ Habia?

Mod. forest, nr. floor.

3005 ♀ SK. 2/3 ossif.

Jacamar

Galbula

28 gms.

3006 ♂ t. 17

Crotophaga sulcirostris

105 gms

3007 Teiid lizard - Ameiva?

3008 Bufo



Specimen Catalog

Date
1963

- No. Luisiana, Apurimac River, Dept. Cuzco, Peru. 1400 ft.
- 10 August t. 2 Sporophila castaneiventris Mod. fat.
3009 ♂ seedeater Cropland, fence wire 10 gms.
- 3010 ♂ t. 1 Volatinia jacarina Bushes, clearing Mod. fat.
11 gms.
- 3011 ♀ one. Tur. Volatinia Bushes edge clearing.
- 3012 ♀? Tur. Phloeocastor melanoleucus 200 gms.
12 Aug. (Campephilus) Dryocopus
- 3013 ♂ t. 4 Bucconid Top dead tree nr. river
Colonia colonus
- 3014 ♂ t. 4 Flycatcher Tree nr. river, edge clump. 20 gms.
- 3015 ♂ t. 7 Small Parrot Forpus passerinus 30 gms.
- Open trees nr. streambed; 8 ± present. Disc. ♀ (lgt. ov. 2 mm.), 31 gms.
- 13 Aug. Bat
- 3016 Bat
- 14 Aug. t. 9 stom. cont. - dry; seeds? Badly ant eaten
- 3017 ♂ mouse Dry grass edge burnt field 189-70-24-15, 50 gms.
- Discarded ♀ had 5 ± black spots uterus, no embryo.
ut. bulges 18 x 2 x 3 mm.
- 3018 ♀ mouse 193-102-20-14, 27 gms.
- Disc. ad. ♂, t. 9, 35 gms.
Common mouse, edge burnt field m. grass. Common in houses.
- Tur. t. 8
- 3019 ♂ same 199-108-23-14, 24 gms.
- 3020 Fish clear pool 20' diam., mud bottom, 12" deep, grass lined.
- 3021 Teid
- 3022 ♀ Lactating. Dasyprocta 555-45-130-45, 8 1/2 lbs.
- 3023 ♀ lgt. ov. 3 mm. Tyrannid Elania
- 3024 ♂ t. 4 Black flycatcher Colonia colonus Tall tree nr. river 18 gms.
- 3025 ♂ t. 8 Iridoprocne albiventris
- 15 Aug. swallow Common nr. river.
- 3026 ♂ t. 7 Dark mouse Dry grass edge burnt field.
(Tail short) 173-65-24-15, 35 gms.
- 3027 ♂ t. 8 same 182-73-24-15, 43 gms.
Lactating (Ectop.)
- 3028 ♀ Myotis Nr. pool 84-39-7-12
- 3029 Frog Edge grass by stream in clearing.
- 3030 Turtle Trap meat in pool of small stream.
- 3031 Lizard. at night, on leaf in coffee area. Pale green dors. 2 emb. 15 mm.
- 3032 ♀ Sylvilagus 383-30-80-51, 2 1/2 lbs.



C. Koford
1972

Specimen Catalog.

16 Feb. Sayaxche, Peten, Guatemala. (in hotel)

4456 Frog.

17 Feb. 8 km. S. Sayaxche, Peten, Guatemala (Lake Peten Itz'at).

♂ 4458⁷ ^{Frog} Phyl. bot.

♀ 44589 Phyl. bot.

♀ 445900 Phyl. bot.

446061 Anolis

18 Feb.

♂ 4461⁶² artibeus

89-0-18-23, wspd. 530.

21 Feb. Tikal, Peten, Guatemala. (Ruins)

4462⁶⁷ small bat.

4463⁹ small bat.

above 2 on ceiling of upper room in Templo de Inscripciones.

4464⁵ Carollia?

4465⁶ "

above 2 in short low passage, sp. C. rum.

mi. w. Acapetahua, Chiapas, Mexico (La Encruc

26 Feb. ♀ 4467⁸ Somops
44678 Artibeus

70-16-8-16, wspd 295

2 On side of tree trunk, 12' up, active midday; others present.

4468⁸ skink.

Under bark of palm trunk on ground

4469 Lizard

4470 Phyl. bot, small.

Netted night, Facial + dorsal stripes, yellow edge ear. Near black hut, tree

4471 Phyl. bot, small.

72 "

above 2 netted ^{and} on shaded shed

dr.

4473 La Concepcion, m. Acapetofan, Chupian. Oder.
lizard

4474 Anolis
Orange-gray, gular flap.

4475 Am. Lizard.
Anaxial palm leaves on ground

4476. Amura

birds Tulla Ishtway, Chupian, Mexico (300 ground)

♀ 4477 Lambania

♀ 78 Arbun, Mat.
~~see~~ Yellow trogon.

♂ 79 Arbun.

Big testes.

♀ 80 Arbun.

♀ 81 Arbun.

Adv. preg.

Deriv. ♀ ^{emb.} pregn C-R 22
♀, 1 emb., C-R 22.
♀, 1 emb C-R 38
♀, nullip., fecund 62.

3 lots of 3 sp.;
may strablos.

1972

Specimen Catalog

16 Feb. Sayaxche, Peten, Guatemala

4456 Frog.

Shower room, hotel.

17 Feb. 8 Km. S. Sayaxche, Peten, Guatemala (Lake Petexbatun)

4457 Frog.

Edge lake.

♂ 4458 Phyl. bat.

♀ 4459 Phyl. bat.

♀ 4460 Phyl. bat.

4461 Anolis

Boards by buildings

18 Feb.
dried4462 Artibeus

89-0-18-23, wspd 530.

21 Feb. Tikal, Peten, Guatemala. Ruins.

4463 Small bat.

4464 Small bat.

Above 2 on ceiling of upper room in Temple Inscriptions.

4465 Carollia?

4466 "

Above 2 in short low arched passage, bsp. C ruins.

26 Feb.

mi. Acapotuhua, Chiapas, Mexico. (La Encrucijada) ^{El. 10'}♀ 4467 Saccosternus bilineatus 70-16-9-16, wspd 295.

With sev'l others on side trunk, 12' up, active midday. (Tahiti ls.)

4468 Small skink.

Very active & fast.
Under bark palm trunk on ground.

4469 Lizard.

4470 Phyl. bat, small.

Netted night near thatched shed, open trees. Yellow-edged ears. (also, ^{netted} 2 following)

4471 Phyl. bat, small

4472 Phyl. bat, small

Specimen Catalog.

1972

27 Feb.

mi.

Acapetahua, Chiapas, Mexico. (La Concepción) Elev. 10'.

↑

4473 Lizard4474. Anolis.

orange-gray gular flap.

4475 Lizard.

among dead palm leaves on ground.

4476 Amelia.

1 March

Tuxtla Gutiérrez, Chiapas, Mexico.

(200 grounds)

♀ 4477. Lanceoia?♀ 4478 artibeus.

yellow throat.

♂ 4479. artibeus

Large testis.

♀ 4480 artibeus♀ 4481
♂ artibeus

adv. pregn.

Same species discarded: ♀ 1 emb. C-R 22, ♀ 1 emb. C-R 30,

♀ nullip., forearm 62. ^{Total take: -} Blat., 3 sp., many streblid flies.End

all in families

C Koford

1972

Specimens - 4482-4489
5 June - 15 August

Rancho Grande, Aragua, Venezuela. 3600 ft. [trail, Portachuelo]

5 June

4482

Proctoporus?

Lizard, vermilion venter. Bromeliad base, 6' up.

4483

Small frog, cadmium yellow back & legs. Forest floor.

6 June L. 8x5

4484 ♂ *Oryzomys alagularis merid.*

311-168-34-25

juv. - no emb. or scars.

4485 ♀ *Hesperomys anomalus*

251-130-33-18

Both at base tree trunks in cloud forest along trail on ridge; deep shade.

[Cat(?) partially ate skins; skulls lost in later hotel cleaning]

30 June 1972

[230 km WNW of Campo Grande],

~~4485~~ Guajuru, Fazenda Bodoquena, Mato Grosso, Brazil.

30 June 1972

4486 Frog.

[200 km WNW of Campo Grande]

Carandazal, Fazenda Bodoquena, Mato Grosso, Brazil.

4 July

4487. Snake, pink venter.

[200 km WNW of Campo Grande]

Galinha, Miranda Estancia, Mato Grosso, Brazil.

18 July

4488 *Dusicyon* - pickup.

Filadelfia, Boqueron, Paraguay.

15 August.

4489 Toad.

Many under street light in evening x

3 - mammals along trail

2 - 1/2, 1 snake

2 - 2 frogs, 1 toad

8 spec.

1967 - Lost. 13

Pen

4455 - 4490, 91, 92 *Dromochelys* *sub*

4493, 94, 95 - parvulus

Ch 1 pm - Section

from 1949 - about

CBKoford
1972

Specimen Catalog.

4482-4489

5 June - 15 Aug.

5 June Rancho Grande, Aragua, Venezuela. 3600 ft. [Portachuelo]

4482

Lizard (Proctoporus?) -

Bromeliad base, 6' up. Vermillion venters.

4483

Small frog. Cadmean yellow back & legs. Forest floor.

6 June
4484

♂ t. 8 x 5. Oryzomys albipularis merid. ? 311-168-34-25

juv.

♀ Hesperomys anomalus

251-130-33-18

Both have tree trunks in closed forest along trail on ridge, deep shade.

30 June

Guaicuru, 230 km WNW of Campo Grande, Mato Grosso, Brazil.

4486

Frog.

4 July

Carandazal, 280 km WNW of Campo Grande, Mato Grosso, Brazil

4487

Snake. Pink venters. Grassland nr. houses.

18 July

Galinha, 200 km WNW of Campo Grande, Mato Grosso, Brazil

skull only

4488

pickup Duscijan

15 Aug.

Filadelfia, Boqueron, Paraguay

4488

Toad.

many under street light, dirt road, evening.

3 mamm.

2 skins, 1 skull

2 rept.

1 liz., 1 snake

3 amph.

2 frogs, 1 toad

8 spec.

Paraguay 5/1/8

Specimen Catalog.

Venezuela - March April 1973

office area in
1973 [Guatopo National Park] 65 ~~km~~ Km. SE Caracas, Miranda,

8 March

Venezuela. 1000 m.

4490

Gecko.

Under old sheet metal in abandoned orange grove. Orange, ^{venter.}

4491

Frog.

Translucent. Outside after hours by light, night.

9 March

4492

Gecko.

Rock at edge clear stream in forest. Pan slope water.

(Have Kodachrome photo) Forest floor.

4493

Frog.

Back light orange-brown w. dark blotches; dorsal

(mimics leaf background.)

creamy line, 1 mm. wide, nose to tail. In heavily wooded slope, r

12 March

Rancho Grande, 14 Km. NW of Maracay, Aragua, Venezuela. 1100 m.

4494

Snake, ringneck.

Have Kodachrome.

14 March

Urama, Edo. Carabobo,

Venezuela. 100 m.

4495

Gecko

House eaves & walls, night.

96

"

97

"

16 March

98

Gecko

Cement floor, day, shade.

99

"

4500

Teiid lizard. Greenish; yellow belly. (Larger - bright green heads, tails).

501

Gecko, small

Concrete walls, in shade, by house,

02

"

to 3' up. Cat ants?

03

"

4504

"

505

Teiid lizard

- ~~yard~~ yard of house

7 April

Hato de la Cruz, 37 Km SW Arismendi, E. Barinas, Venezuela.

4506

Snake. ~~Red?~~

Laterally flattened. 8' up in branches

(Photoed)

of leafless tree at night, under gallery forest. Red eyeshine (moth-like).

Nos. 4491 - 4506

2 snakes.

2 frogs.

Teiid

2 lizards

10 geckos

Specimen Catalog

- 18 Mar/1969 Wheeler Range [Swallow Quick Pasture], White Pine Co., Nevada.
 skull only 4507 ♂ F. concolor. Coll. by G.W. Carroll. #14. Donated
 by Jeff Brent (Aug. 1975). No. 14
Douglas Point, Nye Co., Nevada
- 24 Apr 1969 Coll. G.W. Carroll. Donated by Jeff Brent
 skull only [imm.] 4508 ♂ F. concolor
- 28 Jan 1969 Bassett Creek, Schell Creek (sp?) Range, Nevada.
 skull only 4509 ♂ F. concolor. Coll. G.W. Carroll. #10. Don.: Jeff Brent
- 26 Jan 1968 Cottonwood, Ward Mtns., Co., Nevada
 skull only - broken in 1/2 - no mandible. [imm.?] 4510 ♂ F. concolor. Coll. ? Don.: Jeff Brent. #7.
- 1 May 1968 N.F.K. Cleve Creek, Schell Creek Range, Co., Nevada
 skull only 4511 ♀ F. concolor. Coll. G.W. Carroll. Don.: Jeff Brent. No. 17.
- 3 Oct 1968 H. Hession Mtn., N. Rattlesnake, White Pine Co., Nevada.
 skull only 4512 ♂ F. concolor. Coll. G.W. Carroll. Don.: Jeff Brent. No. 18.
- 18 Sept 1968 Black Mtn., E. of Steptoe Cr., Schell Creek Range, Nevada
 skull - no lower jaw. 4513 ♂ F. concolor. Coll.: G.W. Carroll. Don.: Jeff Brent.
- 3 Dec 1968 N.F.K. Cleve Creek, Schell Creek Range, Co., Nevada
 skull [imm. - small skull] 4514 ♂ F. concolor. Coll.: G.W. Carroll. Don.: Jeff Brent
- 18 Mar. 1969 Wheeler Range, [Swallow ^{Bank} Pasture], White Pine Co., Nev.
 skull 4515 ♂ F. concolor. Coll. G.W. Carroll. (#13) for season
- 1968 or 1969 E. Nevada. Coll. G.W. Carroll. No data.
 skull 4516 ♂ F. concolor no data
- 23 Jan. 1968 Diamond Mountains [Horse Canyon] Eureka Co., Nevada.
 skull only - no lower jaw. imm. 4517 Sex? F. concolor Coll. G.W. Carroll #3
- 7 April 1969 Indian Creek, Schell Creek Range, Co., Nevada.
 4518 ♂ F. concolor. Coll. G.W. Carroll
- 11 June 1969 Ward Springs Mountain, S. of Mud Springs, Co., Nevada.
 4519 ♂ F. concolor coll. G.W. Carroll. #19

Specimen Catalog

^{or}
1968 1969 Eastern Nevada. Coll. by G.W. Carroll. (Donated by J. Brent)
skull only
4520 juv. Felis concolor

skull only
4521 juv. F. concolor

skull only
4522 juv. F. concolor

skull only
4523 ♀? F. concolor

skull only
4524 ♀ small F. concolor

skull only
4525 ♀ lg F. concolor

skull only
4526 ♀? F. concolor

skull only
4527 ♀ lg F. concolor

skull only
4528 F. concolor

skull only
4529 F. concolor

30 Sept 1975 Whiskey Creek (T33N, R6W, S19), Shasta Co., Calif.
skin + skull E. 30 x 25 mm by DFC Don. by G. L. R. F. + G. 5 mm. cont. 2.7 kg. ()
4530 ♂ F. concolor 2050-2005 = 291-100, 129/65 (on 5 Nov.)

Aug 1975 8 mi. W. of Paso Robles, San Luis Obispo Co., Calif.
skin + skull E. 24 x 18, Donated by Calif. Dept. F + G.
4531 ♂ F. concolor 1890-770-262-99, 82/65.

1972 Nr. Orderville, Utah. (Coll. Jeff Brent.)
skull only
4502 ♀

1169 4455 Denmark, P. area 13 Sept.

4490-91-92 Denmark, shell

93-94-95 Porpoise station, P. area

15 20 1000

4455 31 (1st - 1st - 1st)

213	RR	212	62 ± 85 L	RR	370	93 ±	73 L
(1.5)	LC	40	65 75	LC	40	57 L	70 L

Can 1L 25 kg (1st - 1st - 1st)

847 2163

Koford, C. B.

1973

Journal

South America

Felid Survey

Colombia

Venezuela

Panama

Journal -
Colombia - Venezuela trip, Felid survey.

17 February 1973

Berkeley, Calif. → Colombia.

Departed home 4 p.m. for San Francisco airport. Took United flight to Los Angeles. Walked over to America and departed 2030 for Colombia. accompanied by son Cub, 17 1/2 yrs. Plane stopped 1 hr. at Mexico City about midnight. Good view extensive city lights.

18 February 1973. Arrived Bogotá about 8 a.m. Before landing, over smoky unforested hills to N. Saw about 3 snow caps. Green around Bogotá. Minimal customs inspection. To Residencia Alemana.

Later walked to foot Monserrate & took funicular up. Several fires going in brush, & smoke haze over valley. Local resident said this is exceptionally dry year - no rain so far. Walked around city for orientation.

19 Feb. 1973. Calm, clear, smoke haze. Went to ^{Bogotá, Colombia} Indena offices.

Talked w. Amílcar López (Manager, Parque Nal.). Then to Laboratorio de Investigación de Vida Silvestre, Ca. 19 No. 30-15 (Tel. 32-59-16). There we found Bob Cooper, several ⁽³⁾ Peace Corps workers from Tuxpan and one from Macarena ^(Humboldt State student) (= Don Wise, Iqter. Vistahermosa, A.A. #2082 (Indena office) in Villavieja. Also there was John Eisenberg, visiting from Smithsonian Inst. Wise said 1500-2000 families settled at N. edge of Macarena reserve, near Vistahermosa. Re Boundaries had been revised and Macarena made a National Park. But much entry & cutting, especially along rivers. Now Indena building a "cabana" as headquarters, down river & walk S. from Vistahermosa. He said people claimed no cats in that region, but he saw many monkeys. His job mainly administrative. He thought little understanding of conservation among Indena workers in Macarena area. Also that people there disliked Indena. He said all of Macarena park was forested. Could fly to S. end, at "La Macarena," from Villavieja. Vistahermosa about 5 hrs. by road from Villavieja. /Wise also

Journal
(Felid Survey)

19 February 1973

Bogotá, Colombia

told me of recent Induena scandal - a plane load of contraband skins confiscated by customs at air port; there being illegally shipped w. approval of ^{some} ~~some~~ Induena officials. Allegedly ^{one} ~~some~~ had been put into Induena for their illegal purposes. Another person said ^{also} twice as many hides counted as declared. Need more info on this incident. / J. Hernandez said prohibition export crude hides initially good for conservation, but thought eventually would result in more pressure to hunt cats. He said big Bogotá tanneries have not yet started to tan cats - may start within a month. Cooper said very good tannery - Mandala? JH said agreement w. Brazil in Dec. 1972 that Colombia would no longer accept hides from Brazil (unless criaderos raised). Need agreement w. Peru also, & Venezuela. He thinks skins coming from Panama, Darien on Pacific side to coast of Chocó, thence by rail. He & others said few or no steel traps (t. de cepo) used in Colombia. For jaguar, drag monkey carcass around & hang it up to attract - later, put bait and wait. Tigrillo hunted mostly w. shotgun at night. Rodolfo, fieldman of lab, says sometimes use pits for tigre or deadfall. Cat shotgun shell case to make single slug. / Erwin Bernstein (& Carpenter gp. from Florida?) recently had groups for about 6 weeks in Balneario, W. of Noroní, on monkey census project. A jaguar had been shot by a local at Colorado - considered rare event by locals. An ocelot seen once. Probable ^{young} ocelot skin offered for sale at 50p. (\$2.50). Much clearing by hand for rice fields. They were at S. end of clearing & settling zone, just N. of Herrania de San Lucas [this range still primitive they said,

Journal

19 February 1973.

Bogotá, Colombia

Rodensis
& ~~Rodensis~~ (too). Mompox island now mainly grass & cattle, also probably some jaguars & ocelots. North of Granada, largely grass with scattered deciduous clumps & dry (J.H.). This year has been exceptionally dry. J.H. said S. Sucre, E. of San Marcos, mostly cleared. Area farther N., around Ovejas, much cotton. Lower Cauca, rice & plantain. J.H. said still much forest in S. Cordoba. Cleared blocks in lowlands of coastal Cordoba, but also uncleared blocks. On Pacific side, few mangroves N. of Punta Comienzo. Chocó - lumbering but little developed. / Catatumbo Basin - J.H. said Venezuela interested in cooperative surveys. Some oil devel. But mostly good rich humid forest. / J.H. said S. end of La Macarena prob. best for tigers. Said fish migrations (in llavos) attract cats too. Said little clearing of forests S. of Rio Guaviare. Black jaguars from area in Vaupes, Rio Putumayo, Caputá. J.H. said had no specimens *F. tigris*, but ranged up to tree line, often in large chaparral w. some cacti. Probably it & *pardalis* were in coffee zone.

Bogotá

20 February 1973. Again to Lab. Looked over skin collection. Officials showed up about noon. We arranged for trip by car to Macarena, then Tuparro, accompanied by C. Baroja & J. Eisenberg. / J.H. said that skin prices had risen much in last 3 years. 1970, over 2000, *pardalis* minimum length 1500; now over 3000, *pardalis* 2000. He said 70 mm ^{minimum length} regulation still in force, measured from nose to base tail. *F. pardalis* sometimes called: gato de monte, gato sola (Caribbean coast), canaguaro (llavos), canaguaro (Cauca), maracaja (Leticia), ^{or tiger} tigriillo podencos (Caputá). *F. tigris* called gato monte, tigre gallero, maracaja. Gato peludo includes young various cats - fur characteristic. But fly Laka common in jaguars

Journal

20 Feb. 1973.

Bogota, Colombia.

some areas; not rare in tigrillo. / I asked J.H. about spot hunter; he said some ^{Bucaramanga} ~~one~~ at Bucaramanga and —? Possibly — Restrepo, former pres. Assoc. de Tiro. also director of zoo at Baranguilla. / F. Tigris, found legends in some stomachs. / Re skin origin records, "Antioquia" included many from Chocó, "Atlantis" from much surrounding area. / Near Manizales, a jaguar taken recently. / J.H. said that in central Meta about 1955, area better w. gallery forest, ranch owner told him they took 5-15 jaguars / yr. Probably still some there. / The Madam jaguar, which attacked man eating fish, taken Jan. 1959 on Rio Isuabero (J.H.). J.H. said he once saw jaguar on log dangling tail tip in water, as if fishing. He had also seen one smoking up on turtle on a log. Once found 3 turtle shells with plastrons smashed & jaguar tracks there; Sierra Macarena, near pool; large mosaic turtle. J.H. said domestic pig a favorite food jaguar. In Caqueta, one dragged large pig 1 1/2 km. / Medellin zoo — black jaguar from Chocó. / In 1971, at fundo Mata Grande Mr. Tuparo, jaguar found dead. / Meta & Cauca, mainly hunting bar reduced jaguar. / Peace Corps man recently at Colorado, said also got for fairly fresh jaguar skull there (+ 1 recently shot). / He thought ^{that any one} ~~never~~ seeing cat that area would try to kill it. / Eisenberg said that he had spent about 11 days in S. Chapira at A. del Toro pasture, about 5 yrs. ago, & had seen many rocons, pacas, ocelot tracks, and one jaguar. Last apparently had followed him to close distance, about 5 yds, then dog chased it. / about 6 p.m., departed w. Ernesto B.

21 Feb. 1973, brother Alberto, Eisenberg, & Erik K. for Villavieja by car. Arrived about midnight. Briefly talked w. Fred Madam. Stayed in old lab building.

21 Feb. 1973. Looked at animals at Villavieja lab. Pair of Pteromera.

Many turtles in concrete tanks, shells tagged. Several kinds of

Mexico

Journal

21 Feb. 1973.

Villavicencio, Colombia.

mammals, but none had bred. Turtle nests. ^(oro palmos) One ant bear; 2-t sloth.
 Several kinds of snakes in cages - boas, Buthrops, anacondas. / Carlos
 Velasquez, collector, in this area 30 yrs., said jaguar around Villav. 20
 yrs. ago; tiger skin sold at 3000-6000 p., jag. skull 200 p.,
 canine tooth 50 p. (he wore one, mounted in ^{gold} ~~the~~, on neck chain). / Medem
 said closure in Ecuador seemed to be working well, that never large
 trade in skins in Oriente, ^{Ecuadorian} that ~~disliked~~ Peruvians, that Pacific coast
 area depleted of animals during war. He said woolly or howler monkey
 preferred for jaguar bait as lasted long. / Ernesto B. said ^{m.} that ~~that~~ Baten had
 collected monkeys where present plaza of Villav. / We talked in ~~Indians~~
 men in town. One shop offered to buy skins; said bought tigrillo at 1500,
 sold at 2000. Showed us one ocelot skin, 83 cm. from betw. ear hole to
 base tail. He said few jag skins sold as prohibited. Carlos V. said
 much skin trade in black market; dealer having license for 20 may sell
 40. / About 11 a.m., we departed on road to S. toward Vista Hermosa.
 Air smoky + fies visible. Flat but foothills to east. Patches of
 woods. Some openings to a mile across. Many Cecropia. Ceibas
 often left standing. Zebu cattle. Small farms. hens cattle goats
 near some cattle. Perhaps 90°F.; no wind. Scattered tall palms. Some
 palm orchards - oil nuts? Hills to ^{w.} ~~E.~~ mostly wooded but largely
 secondary + some burning there. / Road completed to Vista
 Hermosa 1968, C. said. Then rapid salomiz trai. / Several
 swifts flying over opening. Passed thru small town. About 1330,
 crossed long bridge over Rio Ariari. Clear water + flowing
 but low. Several fish seen. Oropendola nests on some trees.
 Fields of ^{yuca} ~~yuca~~. Town of San Juan de Arama; a few
 miles beyond, ranch of Don Hensolien (& Max Franley),

Journal

21 Feb. 1973

S. of Villavieja, Colombia.

with 18 yr. old Don Jr. running ranch. 1715, arrived Vista Hermosa. Outlier of Sierra Mucuna dimly visible thru smoky air. Many openings cropped coarse grass. Town said to have about 2400 people, region several thousand. Calm, smoky. Walked in patch front. A few hats in cavities low large tree. Big aguana ran. Chachalaca called. Caprimulgids seen & heard evening. Toad and frog calls. An Indio who spoke w. about 4 men (Jefe = Alfredo Castillo(?)). At night saw squirrel sized mammal jump in branches = Otton? Dry.

22 Feb. 1973. Drove about 21 km. on good dirt road to Piñalito, small

town at end line, w. Indio station (house), by Rio Cuzar. Arrive about 0845. River flowing, smooth, many sandy beaches. Went downstream in Kayaks about 20' long w. outboard motor to Guani, about 1 1/4 hrs. Shore had much forest, but many clearings, banana trees. Saw many birds: parrots, cormorants, arhuacas, oropendolas, skimmers (called gaviotas), large tern w. basal white dorsal to wing, small tern, glossy ibis, blue heron, big & small kingfishers, 1 osprey. Occas. trees to 100' +. Overgrown clearings. Plover (turnstone like), swallows, toucans. At Guani, feet & tail of large anthropologist Prionotus, dead a few days; hunter said they ate it. Leuckhart had studied Otton in area 1968-'69, up river from Villavieja. We hiked in wide trail thru forest clearing to the Cabaña (Indio building) for 4 km. Saw no mammals but oropendolas, parrots, other birds. Many palms. Several clearings in stages from cut, to burned over, to planted in bananas. Casiques, ant birds, tinamou calls. Reached cabaña about 1345. House 30' sq. in construction. Patrolman said saw collared peccaries, then tigre, in area last night. Had seen many tigre tracks along trocha thru woods. Said many pajuel "thru

Journal

22 Feb. 1973.

Sierra Maracana, Colombia

and I saw feathers of two (cuculius). Said also many tapir, deer, Fau tigrillo. I saw several large humans, 12+ "diameter"; they said were of big amodillos. I went about 15 min. along trocha toward Cerro Rojo, 12 km. distant. Narrow trail. In all, 68 km. of such trocha from Lis Calra. Said rocky area beyond Cerro Rojo about 3 km. | Trocha We drank guarapo. Then started back to river. Erik saw an agouti. Others saw an armadillo m. louse. Arrived about 5:30 p.m. Took boat back up river to Renálito in dark, arriving about 7:30 p.m. Then drove back to Vestabermaria for the night. Caprimulgid & other calls at night.

23 Feb. 1973 Departed about 0800 to San Juan de Urama.

Calm, smoky. Flat, ranchhouses, short cropped grass clearings, clumps secondary & taller forest. Stopped at de Don Hunsaker ranch. Forest along stream; many birds. Round boulders. Many clear pools w. fish & tadpoles. Saw jays, oropendolas, ant birds. Don Hunsaker III, here 3 yrs., has some notes on birds, mammals. He said tigrillo trocha by river to S. about 1 hr. Chickens, cattle, some crops. | Ernesto - N. Chocó exploited, rest primitive forest. Exploitation near ^{Pacific} coast in S. Pipeline from Putumayo area for oil. Much mangrove. Rich fauna for birds, bats. | Columb. Petrol. Co. (Mr. Philip, wife anthropologist) helped Barriga stay in N. de Santander. Bruce Alton, American, has worked w. Indians there for years (contact thru U.S. Embassy?). | Putumayo pipeline to Tumaco. Central Maricao exploited, rest primitive to N. Primitive areas near Tres Esquinas in N. Central Putumayo, said Ernesto. Two Peace Corps boys working at forest experiment sta. in Chocó

Journal

23 Feb. 1973

Nr. S. Juan de Urama, Meta, Colombia

to SW of Riohuis (came via Turbo, ferry, Rio Atrato), ~~Meta~~. / Don Hunsaker III said much rice, cotton, sorghum, corn now planted in area along Velloz. - Vistahermosa road, some by big companies. Probably will expand. / We drove on toward Villavicencio. Had 2 or 3 flat tires. Arrived after dark. Medem said he did not know of steel traps in Villavicencio markets. / We met 2 people who were going to Tuparro in Jeep + Arrived tomorrow morning.

24 Feb. 1973. No rain. Overcast w. smoke. Dry. Medem said it was first real dry season in 4 years. Waited for Bogota gp. Various delays. Walked around town. Saw large steel trap of European mfg. in one hardware store. Some pineapples + oranges for sale, but little fruit in general. Finally got jeep to leave in evening, about 9 p.m. We rode 6 in Jeep - Gonzalo, 2 P.C. men, Cule, Eisenberg, me. Rough road but dry + passable. About 2 hrs. to Puerto Lopez, small town. Then on all night through flat country w. few trees visible in night.

Sat.

25 February 1973. Stopped at thatched house for big breakfast. Grass greenish, old grass dry + hard. We saw many fires at night, more in day. No Galleries after over 1 km. long, about 20 m. tall, some more. Behn cattle some gone. Occasional Sylvilagus in the road track. One ^{tamandua} ~~caracaras~~ carcass on road. We stopped at one "restaurant" where there were about 10 pass skulls, 1 howler, 1 tapir. Another had several sets whitetailed deer antlers, all small. One had skin of large taura. / We walked in one gallery. Trees to about 100', mostly in green foliage. Saw large red-headed woodpecker, at least six military macaws in tall open trees + flying. In open fields and fences, black + white flycatchers w. ^W tails; also one

Journal

25 Feb. 1973.

Nr. Tuparro, Vichada, Colombia

with long tail (as if ^{carrying} ~~carrying~~ grass). Occasional Buteo-like hawks.

Waited for Orinoco truck w. ~~Indians~~ supplies; did not come, so borrowed gasoline to finish trip. Thru more rolling country with

Perhaps 10-20% in forest.

larger galleries, some several km. long. Most had "caños" of water in interior; clear water, moving, w. small fish. Some apparent Tabebuia (pink flowers) and jacaranda (purplish) flowers.

About 9 p.m., saw 3 rabbits on road; one Dasyatis fox; occasional caprimulgid on ground. Crossed log bridge to the

western station of Tuparro reserves. About 10 people there. One thatched house for cooking & sleeping. Clear caño about 6 m. wide

w. swimming hole (many fish). Fires still going all around horizon. Said set by Indians. Most grass burned and short.

Local man said jaguar tracks reported near Puerto Quemados. Other place tracks reported near cave was 1 1/2 hrs. up Rio Tuparro from the Orinoco. In spite of fires, stars clearly visible.

26 February 1973. Monday, about 10 a.m. departed in Orinoco for Rio Tomo, about 14 km. all through burned grassland. Some patches

gallery forest a mile apart. Grass recently burned. Big red ant mounds, 2-3' high, irregularly spaced. Much ground covered w.

earthen tubes, apparently worm castings, 3-4" high. Near river, area of hundreds of termite mds. to 2' high (photo). Narrow

band trees 10-15 m. tall on S. side river - river about 100 m. wide, mod. muddy, slow current. / W.e. put outboard boat in water &

went downstream about 1/2 hr. Saw 2 yellow-necked ibis, 2 kingfishers, a few glossy ibis, few other birds. Arrived

at sand bar about 300 m. long & 70 wide on N. side. Several least (?) terns flying over. We looked for tracks. Soon

Journal

26 Feb. 1973

Faunal Preserve "El Tuparro," Colombia.

found tracks tapi, many of capibara (+ droppings), lives of cat tracks. Cat judged large ^{or puma;} ocelots, for one set about 9 cm. wide. widest w. $7\frac{1}{2}$ wide (=hind foot?). Tracks near bushes, but also at river edge of fine sand bar. Max. distance betw. tracks usually 1 ft., occas. 2 ft. A few tracks coati (?). Spoonbill feathers on shore. Many small caiman tracks + saw one about 4' long. / We returned to track. ^{Few} birds along river - many less than near Macarena. 1 amberja, Great blue heron. / Burned grassland area had occasional bertoni hawk over or on ground. Occas. ^{caracara.} ~~caracara~~. Sky $\frac{1}{10}$ cumulus; warm + dry. / Wind all last night + morning but dropped in afternoon. / Area visited today not rich in birds. Probably 2 sets' tracks represented. / About 8:30 p.m., Unemig from Villavieja arrived w. supplies. Wind rose in evening. Clear sky. Plan to go to Orinos tomorrow, $3\frac{1}{2}$ hrs. to E.

27 Feb. 1973, Tuesday. Early morning, 2 turkey vultures atop tree near station. Pair large parrots flew over, calling. Pair of blue + red macaws flew over gallery forest. / Fair set weather instruments at station. Diet mainly rice, beans, pasta, soup. / Saw kinds of small fish in swimming pond in caño; Cich took a few to about 8" long w. back + line. Boys said had seen Juric in Rio Toro; often in Rio Orinos. Zoo director from Milwaukee, Schmeidel, had been here w. photographer to make a documentary movie recently. Viewed in morning, as before. / Saw several hats over bathing pool (10 yds. across) last eve. / About 10 a.m. we started east in jeep for "Tuparro," main lodges. near Rio Orinos. Rough dirt road. Nearly all grassland burned at first. About 175 km. by road to destination, or $3\frac{1}{2}$ hrs. continuous travel. Stopped about 50 km. out where green short grass (Andropogon and a sedge on a

Journal

27 February 1973

Faunal Territory "El Tuyo", Vachoda, Colombia

thick basal stalk , said to have been burned early Dec. (3 mos. ago).

Spaces between galleries often 2-3 miles, but galleries dense & to 100' tall, some fire-killed trees at edges. Occasional butomine bough, but essentially (J.E. photoed)

no animals burned area. Once a white-tailed deer standing under choparro bush where new green grass (the P.C. boys say deer survive after ^{burn} new grass).

On to area of mounds about 1 m. high & wide, spaced 3-4 m., apparently made by large earth worm castings. Gonzalo said areas between flooded but tops rarely (photoed). Mounds of hard clay, & road made in this area very rough. Some burned off some grass cover. | Stopped at

site of Prodonotus hole angling in for about 8', about 18" diameter. A juv.

J.E. photo

Ducicyn (thous) came out and stood about 5 yds. from ear. Another

shorter burrow, 16" diam., 100 yds. farther on. P.C. boys say they saw them

a week ago. Walls clearly dug w. huge claws. | Stopped to investigate gallery

about 75 km. out. Area perhaps 2 miles long, 0 to 200 yds. wide. A clear

cáño about 5 yds. wide & 10' deep in spots meandered thru it. Area of

"camp two", previously visited by P.C. boys. They said saw band of Abutia

there; we went to general ^{site} area and found apparent boulder tracks (very

elongated foot & phalanges) in mud by stream. | Several kinds of fish visible

in cáño slow-moving water. Blue & red macaws, parrots, other birds.

But we saw no signs of peccaries, agoutis, anteaters, other

forest floor mammals. Dried leaves covered ground. Good tree vegetation,

dense, tall, many small palms, but little evidence mammals except

occasional small burrow (armadillo?). Walking outside gallery when

choparro & other scrub, saw small grey-headed woodpecker, once a

burn area. Much of outside ground strewn with erosion movement of

cinder gravel, & some bare low hills of similar greyish rocks. |

We pushed on to W. About 3/4 there, came on start of huge black

Journal

27 February 1973.

Fauquier Terr. "El Tuparro," Vichada Colombia

volcanic rock boulders & outcrops. These continued to Orinoquia. Saw several caprimulgids on road in early, and one or two foxes. Arrived at Tuparro camp & had usual rice, beans, potatoes, banana in water. Apparently guards & several families here - at least 6 small children at once. Saw 4" long grasshoppers came to lights. A generator runs lights in several prefab. houses & elsewhere (but no water in pipes the modern plumbing). Saw a few bats near lights. Heard & saw no wild animals in camp area. Warm still evening.

29 February 1973. Early morning, heard apparent Alouatta in far distance

to S. Macaws, parrots, doves, woodpeckers, forked-tailed flycatchers, active in trees near houses. Still muggy morning. The boys gave us a big Hercules beetle (sawid). Many black biting flies after sunrise. We drove about 5 km. to edge of forest & saw at least 3 med. sized black monkeys going thru tree tops (Cebus ^{nigritus} ~~apella~~?). Saw tracks of coati(?), small peccary(?). Fair number insects & birds. Outside of wooded strip, passerines in thick grass, as if large rat-sized mammals or rabbits. We walked up slope of black solid granite about 500 ft. to crest, where we saw Orinoquia River about 1/2 mile distant. Forest lined, but wide sandy beaches on Venezuela side (photo). Found several lizards on rocks (coll. one for station). Found at least 3 small bats beneath boulders, 1-3' off ground, another in 3' high shallow cave (coll., Emballonuridae; left for lab.). Hot & windless; flies biting & bothersome. Returned to Tuparro bldgs. Escamberg to leave via Pto. Carreño about 3 p.m. We by Aring for Tapon, Villavieja, about 4 p.m. Hopefully in V. by tomorrow late afternoon. Orinoquia about 200 m. or more wide; slow current. Said rapids up & down stream. Gonzalo Rodriguez said little hunting here or nearby. But he carried shot-

Journal

20 Feb. 1973.

Tuparro, Vichada, Colombia.

gun & shells when walked w. us. Saw no evidence game with my gun. Big fish available in Arroyos & said good fishing. | Departed 4 p.m. in the Chimio, a super-jEEP truck. Rough riding & rough drive, Lopez. We saw one w-t deer in open, greenish burned area, 200^m. from cover. About an hour back to start of the big black granite outcroppings. Brief rain shower. Arrived Tapón camp about 9 p.m. Short stop. Pushed on in dark.

1 March 1973. Arrived Savita about 0515. There ^{we} turned over to guard 3 boys & shotguns (16 ga. singles) found hunting on Tuparro preserve. Then drove on to W. Animals rare. Grass mostly coarse Andropogon, much of it burned. Small birds little song inter; usually none. No cover at all for 90° or more of horizon in many areas; minimal spaces between even often over 3 miles. Seemed drier to W. Saw no wildlife on road except occasional ibis or lapwing. Arrived one fair sized town, ^(m. Rio Meta) about 1130, Puerto Lopez 2 hrs. farther. Rio Meta about 100 m. wide, slow flowing, clear wooded banks where first encountered. Near Puerto Lopez, rice companion and tilled land. About 10 km. to W., plots of various introduced grasses - pangola, colonial, guinea, etc. - apparently trying to improve grazing. Drier here than farther E. Smoky, calm, humid, hot near Villavicencio. Arrived about ¹⁶⁰⁰ ~~1530~~, 24 hrs. from Taparro on Arroyos, with no long stops. Much shaken up by rough ride. | In eve, visited Dr. Medina. He said knew 2 men in lower Cogasta, rubber dealers, who had turned into skin dealers; sell ammo, guns. Indians now hunt for beads instead of for food. | FM was stationed in S. La Macarena in early 1950's. Many white-bellied peccaries; in April May, migrated through a savannah there - sometimes over 300 seen at once. Could hear noise at long distance. One trip near highest peak, saw train big jaguars which followed them (& hurray). FM said actually saw only about 6 jag. in life. In Colombia since 1950 (university in Berne).

Journal

1 March 1973

Villavicencio, Meta, Colombia

Early 1950's, truck road to Granada, mule to S. J. de Arama - all forested then. An air strip for DC 3 at Macarena sta. (approx. Vista Hermosa). He reported tale of 8 day Tigre hunt in lower Cauca in 1957. They called jaguars w. pat of clay + sometimes zarramend. Saw many fresh tracks but ^{saw and} got none. Later others (Lee Bros.?) came with trained dogs & got many. He thought tourist dept. hunt in lower Magdalena was about 1963-66 & was chronicled in Life mag. Captive released & shot. It / S. of Cartagena, Golfo & Morosquillo, the jaguar on Medusa wall. Had killed huns & several large "vaquillas". Went up tree. Shot. Dry area w. cattle & 1950's. / 1959, expedition in Macarena ran jaguars. Apparently was rich forest area.

2 March 1973. Short hard rain shower last night; first for long time. / We found that truck had left 0400. So waited further w. Melam. Then took bus to Bogota, 4 hr. trip. Steeper slopes across canyon still forested for first hour, later cleared, burned, eroded. / We went to Inderana lab. Talked w. Bob Cooper. Eisenberg had not arrived. Went to Residence of Dick Leard, near lab. Short shower in Bogota about 3 p.m. - first in weeks. / At residence, met Stewart Royster, who had been in Colombia about 2 yrs. working with Matilene-Barri, Indians of N. de Santander, on Rio del Surco. These hunted coon, agouti, dantas, w. bow & arrow (guns rare). Rarely killed cats, or sold any skins. He said mostly undisturbed forest. But heavy clearing in NW. corner of N. de S. Bruce Olson, missionary, had been encouraging Indians to clear and cultivate, over last 11 yrs. Also cleared in NE corner of N. de S. Mostly little immediate danger exploitation N. of Conversion-Tiba road. Royster hopes to U.C. Berkeley (Anthropology). / Visited Jorge Hernandez at home (Cr. 14, CHe. 39, # 18-14). He recently returned from trip to Washington D.C. to a Plenipotentiary Conf. to conclude an International Convention on trade in

Journal

3 March 1973

Bogotá, Colombia.

certain species of wildlife. Feb. 27, 1973. Two appendices were lists of species & subspecies prohibited, and those for restricted utilization. The prohibited list included F. p. nictis & maurici, F. w. micronegus & salvini, F. t. oreilla, F. jacobita, & P. orca. / Jorge thought little control from Ecuador, but no evidence. He said one smuggling chain thru Guayaquil to Manabí and up Rio Branco to Iquitos. Caracas & Port of Spain may be smuggling ports. He hopes to arrange import convention w. Venezuela soon. Still vague on terms of agreement w. Brazil. / He was working for maintenance of at least 3 years in cat hunting. Said had secured records from Europe of airline carrying skins & w. this evidence could achieve much in reducing contraband. He thought agreement w. Panama also needed. / He said Cavia porcellus occurs in Colombia including llanos & probably made the runways we saw there (^{subsp.} ~~subsp.~~ caripensis?).

4 March 1973. Sunday. To airport and departed 2 p.m. on Iberia for Caracas. Phoned Mondolfi - today start of Carnaval, & next two days holidays. Stayed at hotel ^(España) in Bello Monte. Walked w. A. Landa at night w. thousands revelers, pavements covered w. confetti.

5 March 1973. Went to home of C. Mondolfi in Alta Florida. (He said rich forest area in NE Amazon, "Kubaje", accessible by airstrip (has cabin (?) who goes weekends). He was interested in Eisenberg project. / He said jaguars surely in Insurgente park, 1 1/2 hrs. from Caracas; one killed there about 6 yrs. ago. People believed it center for jags. going out into surrounding zone. / T. Blohm had acquired peninsula in lake near Caracas & planned to stock w. native animals; 2 guards, fence; may be good for ocelot study site. / ^{F.M.} H. Tame said had examined about 6 ocelot stomachs; contents mostly crested rodents + 1 agouti (also sting, so perhaps captive or dead), lizard, turtle. / Near Paragua, N. central

N Y Times 22 Feb. 1973 p. 78.

article: "Illegal wild fur ring" a shipment from Brazil to Canada intercepted at Idlewild; included many cats.

Tiger Census in India -

2 articles in Cheetal 15 (1): 67-78, & 78-94. ↙ S.R. Choudhury ↘ S.R. Choudhury

methods measuring tracks. Observations.

Brazilian paperbook -

Exposé da fauna Brasileira ameaçada de extinção. 1972. 175 pp. Article by F. Pirer, H. Seck, Coimbra-Filho, Vanzolini, Carvalho, Mäganini.

Taurist mag says:

Venez. - 350 000 sq. mi. Highest: Pico Bolívar 16,427 ft.

10 million pop. 3.3% ann. growth. 10.6/km².

Caracas - 3019 ft.

Journal

5 March 1973. Monday

Caracas, Venezuela

Belvian, ^{reliable} friend recently shot a brocket, then saw a ♀ jaguar behind it. / Gonzalo Medina not yet returned. Collector's skins moved to Rancho Grande. / M. says can arrange plane transport to various ranches for field work. Carnival holidays today & tomorrow; most conservation people out of town now.

6 March 1973. Tuesday. Still carnival holiday. We visited zoo at Parque del Este. Paimoulots in large cage; when water truck came to spray, one climbed 15' up wire & along dog ledge to remote corner - used wrists to climb rather than digits & claws; about 3" x 6" mesh of 1/4" bars. Catador. / No jaguar ^{seen}. But a pair of *Pteromys* in not open pool. Birds included Cuckoo whistling - long descending whistle - and ball bird calling repeatedly. Spoonbills, scarlet ibis, ducks, toucans, a monkey islet. Adult & juv. *Sarcophaga* in cage. / Later went to zoo in Parque "El Peñon" in Paraiso area. Much larger collection mammals in smaller area. Two jaguars sleeping one cage. Pair ocelots. Single magay. / 2 *Sarcophaga*. Many tropical birds. Some exotic birds & mammals too. Two capybaras, 2 Tapirs. Spider monkeys & island of *C. nigritellus*. Scutibiscia, macaws, several *Beaverus*. Jaguarundi - grey in color; vernacular name given as "gato montes o onza". / Found Nat. Science museum closed. Pleasant temperature morning, hot afternoon. / Mondolfi had said Orinoco delta to E. of Tucupita undeveloped swamps; ocelots, jaguars. Papers said drought in Lara causing movement of cattle to S. / Another article said rats causing great crop damage (also carry leptospirosis). Estimated 400 million B's/yr. Loss. Exp. Guanis, Portuguesa - rice, sugar. Leptospirosis common in livestock; dogs transfer to man. Confirmed infected meat. / 7 March 1973. To Mondolfi's office in Chacaito. Arranged trip tomorrow w. Luis Crespo, Jefe del Parque Centropo, to park for a few days. Base of park in José Ramón Ortega. / Met Alberto Bruzual Salaya,

Journal

7 March 1973.

Caracas, Venezuela

also in park dept., who is trying to get jaguar reserve set aside in Yaracuy, 15000 ha. of Inst. Agrario Nacional land. He said jaguar, ocelot, ~~ways~~ there; also paca, agouti, tinamous, paca. To be called Dona Paula. Reach via San Felipe on Puerto Cabello. He said jaguar in Mata de Guadalupe, NW of Caracas on Rio Isuarequito; N. of La Brea. Also F. wiedii in N. Falcon in Nat. Park ... del Toro, Pueblo La Tasa. / He said F. wiedii sometimes make call like toucan (pacha) and then attack prey. Says no steel traps used by Venezolans, but by poisoning Colubris. Think Sperther in Guatopo. Says no invasion parks by Venezuelan colonies, but some by Colubris. / Another tiger area near Corral Viejo, NE of San Fernando, near an Inst. Agraria station. / Also tiger in swampy zone to W. of San Fernando called Garzera de Changuaral. Many waterfowl. Also jag at Caño Ruende, W. of San Fernando. // Article in La Religion, 6 Mar., said 80 nations, including 17 Latin American, signed convention prohibiting most commercial transport ^{of endangered species} across frontier. / Various papers reported many fires in savannas & mts, in Portuguesa, Cojedes, Sucre, others, & 200 ha. on Rio El Avila near Caracas. Other articles deplored burning & cutting, largely because affects watershed & water supply (now short). Peanut - big crop (Mr. Lago Valencia?) on El Fango Tigre & Motim (sp?) - 13 mill. Kgs. - for oil.

8 March 1973. Thurs. Luis Creda arrived 0830 & drove us to office of Guatopo N.P., 150 km. from Caracas via Santa Teresa, all paved road (2 hrs.). He was only 1 1/2 hrs. late. Park 92,600 ha., established 1958.

Creda has been ^{for} 9 years. He said only 8 men on park staff. / Road thru Miranda thru hills of mesquite & other bushes, fairly dry, w. few larger trees. Lower Guatopo largely small second

Journal

8 March 1973.

Guatopo N.P., Vol. Venezuela

growth. Some burned spots. L.C. said much entry by livestock, woodcutters, fire setters, some hunters, in this part. a single guadalupe in lower area. Later up to more humid forested zone. Stopped at guard station at Las Macanillas & talked with worker Simon Guzman, former hunter. He said usually hunt by waiting. Traps not used. 2 yrs. ago on trail to S. of his station, he met a jaguar about 2 m. away, he said. Luis C. said that in 1967, Nat'l Guard men stationed at La Macanilla & had dogs. Jaguar killed 3. They got hunter who put out young goat & killed jaguar, said to be 155 Kg. Simon said ocelots eat mostly tinamous & other birds. Escobar said that last year about 4 p.m. one day a jaguar crossed close in front of his car, betw. La Macanilla & office. | Another jag. killed ⁱⁿ upper Cuyato m. Tapo de Agua Fria in 1971, as annoying family there. Apparently no skull or info. kept on either one. | Reached office area. One large bldg. by highway. Great house across road. Good view down forested canyon to N.E. Bus (Caracas → Attagracia via Sta. Teresa) passed by office on highway. | We saw macaws, oropendolas, tanagers, and several large long-billed green-backed todies near office. | Took walk w. local man up trail to "fundo" abandoned about 10 yrs. (old orange, coffee, banana trees, mango trees). 30 min. from office found jaguar droppings in trail. Two large whitish pieces, one 8 cm. x 3-4 cm., + two larger globes of nearly pure hair w. a few bone fragments mixed (sawd some). Our guide said lapa (= paca) hair. Collected some. Many paca trails in this area, humid second growth + abandoned farm, on mod. slope; our guide said agoutis go everywhere, not as just on fired trails. a/ bunch of green plantain partly eaten and agoutia stalk chewed up; ^{our guide} said by paca. | Many long views over forested fairly steep slopes from office area. No insects

D.P.D.

Journal

8 March 1973.

N.P.K. Guatopo, Vanc 2069

battered and fair breeze. Cercuans indicated their park mainly for water-shed protection. Map showed hundreds of former settled sites; now few or none occupied in most sections. Drain into Logartip + other dams. /

Spec.

(gecko?) Took lizard w. orange vertes under sheet old sheet iron on slope among old orange trees. Inside said many ~~poor~~ ^{monkeys} when oranges ripe, Nov-Dec. Many ~~poor~~ ^{monkeys} when ~~monkeys~~ falling, July. / We saw one good tapi track. Heard howler monkeys in distance to NW. Inside (Jose Elias Alvarez) said 3 kinds monkeys; sanguato, frontino, + voceros (?). (He did not recognize my description of mono araña or marimondo.) / Summit about 1 km. beyond office. Then descends. after a few km., forest drier, many orange-flowered deciduous trees on S. slope. Outside park, slopes grassy, brown, essentially treeless, burned patches, some still smoking. A great contrast to green forested slopes in park. / Near office, 7 voceros flew over about 5:15 p.m. I flushed a quail (kenelope?) from old plantain plot. / In eve, took a translucent frog on house after near outside light; expanded toe tips.

Spec.

Nat'l Park Guatopo, Maricao, Vanc 2.

9 March 1973. Near office, many calls chachalaca about 6 a.m.

~~Fog at + obs~~ Clear sky. / Previous night, 1/2 hr. looking from road revealed no eyespot warmole or birds, no caprimulgid calls, no luminous insects.

Fair variety of moths at house by lights, but no great beetles (said mostly at start rain, ray). / Off on hike up main

trail in park, w. Escalona + guardabosque Elias Alvarez. Started (0800)

at point about 12 km. toward Macanilla + walked W. up ridge

(= Fila El Colorado)

in forest; No plantings or clearings. Narrow trail. Heard

Alouatta about a mile S. at 0830, much howling. Also

saw part of troop of smaller red-brown monkeys scattered

Journal

9 March 1973

N.P. Geotopo, ^{Edo.} Miranda, Venezuela

in green tree tops - Elias said "macaco" (sanguato, frutus (big w. white across forehead) = ?, and macaco (= *Cebus apella* or *nigritatus*?) I recognized by him. Often saw armadillo diggings.

Ground covered w. leaves; ^{yellow} clay beneath. Occasionally heard Tiramen.

Many medium-sized trees; some larger to 4' diameter. Probably had been cut in far past. After about 2 hrs., still on ridge, interested old trail. They said it was formerly a cart trail from Santa Teresa to San Antonio; now grown over. Then point perhaps 100' below summit level. We turned to S. & went along sidehill, more or less level trail, for perhaps an hour. They said surprised at lack mammal signs - blamed it on settler invasions - said more near office area because of protection, old fruit orchards, many posos and other small mammals. We found one apparent jaguar deposit, similar to yesterday but about 3 cm. diam. Two pieces, damp gray muddy color. Contained claws, small spines (of porcupine?). I saved part. Open lay in center of trail & ground

cleared for about 10" there, leaves & sticks pushed back, as by pawing, earth packed and no claw scratches or apparent urine (same yesterday). No odor except at a few inches.!

We dropped into a small clear rocky creek bed, much moss, ferns, ~~water~~ rock plants. Then on, passing other creeks, & eventually reached an old trail campsite on a clear stream. We

had heard & seen about 8 guans (big, black) in trees along the way. Elias saw possible pecary (baquiri). All fair humid forest but not dripping & many small trees.

Many vines, some thick & woody, others stringy. Elias

droppings

Journal

9 March 1973

Nat'l Park Guatopo, Venezuela

showed us a "vacuno," tree 3' diam. with straight bole, which had milky latex which tasted like thin cream; he made 1" hole in bark & the milk started to bubble down trunk. Slightly sticky. Said a good drink. Only about 3 old slashes on tree. / At one point I picked up a possum skull, probably Didelphis, but we saw no other animal remains. A few deer tracks. Few trees in bloom, but many fallen fruits & seeds (guava foods?). Last section of trail, about a mile, descending, to a clear stream about 15' wide. Elías cut quite a bit here. Said censused for about 6 years. We saw tamest pair of guanas, perched about 100' away, quietly - seemed to indicate little disturbance. Black, blue face, red gular patch. Small fish (4") & eels (3" across) in stream. Said to be old trail campsite nearby. / With brief stops for water, lunch, it took us 5 1/2 hrs. to reach end of trail. Started back about 1330 & moved faster, so saw little. Back at starting point about 1730. Erik had found a small gecko on rock at side clear stream; it ran across water about a foot. Later we put it in dish of water & it could indeed go across top, feet mostly not breaking surface tension, body perhaps acting as float. (belly) He also picked up frog by trail in hand first; cream colored 1 mm. line tip nose to tail; pointed nose. ~~(by morning, dorsal stripe gone)~~ We all picked up numbers of tiny ticks, especially around ankles & belts. / Elías said there were sloths here (one heard) but we saw none. Fair numbers of bats seen in evening near buildings. The porcupine dropping also had apparent snake scales; saved sample - and 2 nematodes.

10 March 1973. Saturday. Talked w. Esclara & looked at maps. Walk yesterday started about 1 km. before Macanillo station. Went W. to Fila El

Spec.

Kodak.

Journal

10 March 1973

N. P. Guatopo, Miranda, Venezuela

Colorado (Fila La Izquierda to N). Then SE and down to Rio Santa Cruz, at point about 2 km. W. of Fila El Castillo, near S. center of park. 18 guardapangues, located around perimeter. Most invasion from Araguato, also Santa Teresa; little from S. (Alto Guais). Escalona (+ another man) thought teguis in steep formerly farmed area NE of Piedra Piedra, as many fruit trees. The second Escalona said pecaria especially fond of guavas. Another probably good area in E. Central section of park. Mainly 4 drainages in park, Lagartijo most important. Asked about storks, the third man said many at big + related bird tale of removing one from road. They said where many acacias (garano) trees. I suggested there may be 10 teguis in park; they thought more. Escalona said they would like to gather biological info but needed an official directive explaining what to do. Probably record + mapping of sightings + sign jaguere would be good start. Highest point in park about 1400 m., to SE of office area on Miranda - Isuaries line. || Mondolff thought that mangos at least formerly common at Rancho Isardi; often seen on road, before so much travel. || About 3 p.m. we walked up trail near office to old orchards + back. No new droppings found. One mammal (agouti) scatted away on ground. Two guars in trees. Ground packed, hard, leaf-covered.

Sunday.

11 March 1973. Morning fog above our level but cleared about 8 a.m. Cloud chachalaca chorus from edges forest; continued at times to midday. (We again walked the local trail to old orange orchard. Near highway bend high doglike bark + rush of animal in forest; bloody, low, fast - probably a Lynx taylori or dark jaguarundi. Muggy + still, little bird activity + no monkeys heard. No more droppings. We departed about noon w. jeep (driver Olivo) and went N. a few km. past Macmillan, then through locked cable gate to mud road which descended through forest for 11 1/2 km. to upper Rio Tagueya, where there was guards (not park) house +

Journal

11 March 1973.

N. PK. Guabopo, Venezuela

cable trolley over river. Near house we saw 5 or 6 manhays, said to be macos^{ac}; in trees; prehensile tails curled down, brownish on back but mostly black. One juv. dropped lightly 15' to another branch. These in green forest in bottom of draw, where tree 60'. Humid & hot. River clear, fish 6" long in schools; scales & fins on back indicated much larger parent. Stream about 20 yds. across, flowing well. (Lower Taguaya to be dammed soon). About 3 km. before river, crossed small stream & saw one sew bittorn by stream in shade; it flew sev'l yds. upstream; further alarmed, flew up into trees & perched 25' above ground. / At one point a green snake on road, front of body (2 ft.) erect & still; then it rushed off road. Probably 6' or more in length. / Good forest vegetation along this road & probably good for animal surveys, tho an obvious entry for hunters. / Yesterday midday, from office area, we saw a large bite w. wide swallow tail; all white below w. black tips wings, ^{pearl} gray above; it flew high above forest, fairly fast. A large swift once dove at it and the bite descended fast. / Drove on to Caracas. Much area covered by mesquite about 15' tall on dry flattish or rolling ground; ocelots there? Hello much buried near the autopiata, but patches of trees in pockets & draws showed potential if not buried.

Caracas, Venezuela.

12 March 1973. Visited Mondalpi in office. He made various calls for me. Finally got invitation from Dr. Angel Mancera (Valencia 88-615)

(of Carlos Galavis)

to visit Urama ranch. Apparently joguans had killed several cattle there recently and they had killed two joguans. We packed and departed for Maracay and thence to Rancho Grande, biological station. Arrived late afternoon. Light rain in Maracay. / Medina returned in evening & we talked. He said Park or preserve in NE Bolivar, Altapl. de Nuria, far distant. But

(of accomplishment)

Administradora Benente

Federación de Cazadores de Venezuela

Aptdo. Caraca 506 72 del Este.

Calle Real de Bolívar Grande

Edif. Tres Hermanas - piso No 10

Tel. 71-42-23- Caracas.

Dr Angel Mancera

041-88-615

Valencia code

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Monte Avila Editores

Taavunq!

12 March 1973

Rancho Grande, Arago, Venezuela

Dona Paula in Gararuy soon and hoped for perhaps faunal reserve in 5. ^{central}
(8 Sept 1971)

(8 Sept 1971)

Guano soon, in savannah area. He said collected jaguar recently, ^{skin}

near Churuguada, S. central Falcón. Said much clearing in Barrios, formerly
rich forest, for agriculture, but there ^{forest} forest preserves there and doubtless

teigen still. / He said Colombraro used steel traps in Venezuela. / Met here
13 March 1973. Tues.

Arnaldo Lirio from Univ. Los Angeles, Merida. He said ouelote in SE foothills of Sierra Los Angeles (Merida range). Joque in swamps

of SW of Lake Maracaibo (x bad drainage). W. of lake, much

cattle & population. Oil east of lake. Since Los Angeles much cut.

over but still forest areas; all humid forest. Said probably tiger

in Selva de San Carlos, par. W. apure. / also talked w. Paul Schwartz -

he had not been ^{for} in field since last May. // Went to Maricao to phone to Marcera; he had gone to Caracas! More delay. Back to Rancho Grande.

Remained foggy in area. / Examined cat skins. F. onca cul 2, 31 July

1969, measured 1220-410-190-65, wt. 20 kg. (Chupadero, Bolivia). / The only

F. tigrina, 2 ♀ Feb. 1972 (Rio Negro, frente a Salto Chicharrón), ♀, 780-305-
[Juv. ?]

115-45, 2 Kgs.; soft & rather fluffy - spots similar to wiedii but nose hair
sloped posteriorly; some open spots w. lighter color within; tail rings incomplete. / a

Large F. wislizenii ♂, 955-40-40-55. Some weighed about 3 lbs. / F. carolinensis,

one of 12. 8 Aug.; 1150-385-160-55; t. 34x25; 16 Jan. 1969; Rio Esverde,

Bolivia. Most weighed about 9 lbs. / F. pandaka ♂, 17 Nov. 1968, 13.5 kg. j

L. 33x29; 1220-410 tail; Col Cojider. / Mondoffi was mistaken about black

F. tigrina being here. / Fuzzy & ^{drizzly} ~~drizzly~~ all day. We walked trails up.

slope from lab. Saw 2 terranos (Nothocercus?) together. Heard

Alouatta in distance to S. Took a ring-necked ^(?) snake on trail; red

Spec.
snake

band hind neck & red tail (orange red) twisted in various curls. Or-

pendulous. Lvs & at least one entering long hanging root.

Caza y Pesca article.

Presas de Isari, Guyana

Oct. 1968 - animal rescue.

Flooded 800 000 m², ~~100 km²~~ ~~(80 km²)~~

Rescued 15 000 animals - incl. snakes, birds - 2 curaguas.

(+ P photo. Nov. 1969. no 93.

Velutini El Rosero, Apure, 1959. Says 148 lgs.

Vernac. names.

cachiramo montañero
sabanero

venados lochas
caramorudos
cariquito

Baquiro cuichado

oso palmero
mclero
osito sedoso

Journal

14 March 1973

To Urama, Carabobo, Venezuela.

with Paul Schwartz to Maracay. Thence to Valencia through dry country resembling SW Puerto Rico, especially w. several small fortines (Coats, Heinz). Smoky atmosphere, bare short grass (brown) hills. Valencia bustling and many modern stores & bldgs.; looked prosperous. Phoned Mancera; he had gone to Urama. / We went to Pto. Caballo. Hills near road covered with brush about 5 m tall, about $\frac{2}{3}$ dry, mixed with cactus - possibly good for ocelots. Greener near coast & some hilltops in fog had trees. Near Pto. Caballo, mesquite flats mostly green. Pto. C. had dodges, big ships, but few modern bldgs. / We departed 1215 and went W. to Moran and thence Urama. Hills to S. forested, then to 30 m. in valleys, except for lower parts, and dominantly green. / At Urama found Mancera, and C.G.H. (= Carlos Galavis H.?), about 70 yrs. They installed us in nice old house at river end of tiny town. / Then we looked at the prize bulls in corals & stalls. One recently grand champion (of ?) at Houston. House had dozens of certificates & trophies for cattle, primarily Isyr, Isuzemat, Brahma, & such types. Apparently Galavis family dated on breeding bulls. / Mancera arranged for tiger hunter to guide us tomorrow; the man who had killed several in last few years because killed cattle. Two males taken recently were < 100 lbs. Mancera said that on another ranch a tiger had killed (formally) about 12 cattle in succession. He said usually hunt by dragging partly eaten carcass to good spot for shooting w. light at night. Also a pipe canon trap sometimes used. He thought pumas present but apparently few & not dangerous to cattle. Ranch about 12,000 ha. He said that many locals hunt in the Dona Paula area adjacent to ranch; now no protection there. / Near Llanos town we saw several long (30 cm) thick lizards, largely green color; ground & one on branch.

Journal

14 March 1973

Nr. Urama, Maricao

spec.
3 geckos.

Light drizzle after dark. On walls house under eaves in evening, saw 3 large (150⁺ mm) geckos spread 10 yds. or + apart. Few nothrus or other insects; mod. cool. Later caught one large under eaves, two small (60⁺ mm) on wall but only a few inches up. Saw another, mod. length, on outer leaf of air plant in tree, ^{plant} over termite nest. Mosquitoes in house bedroom; holes in screens.

15 March 1973. Foggy overcast; ground wet from sprinkler in night. Our guide, squirrel & hunter Manuel Cabrera, turned up about 1100. He spoke good Spanish & was small unpretentious man about 55 yrs. He said he had hunted tigre using hawks as bait. Occasionally he used steel traps (w/o teeth). Hunt ocelots by walking at night w. light. Said no puma here - but he ongita & another cat, apparently yaguarundis. Ocelots more common than tigre - often 2 together. Once killed two adult male tigres, same place, at interval one week. Recent tigres taken were about 90 lbs. Eat deer, capybara, paca, agouti, turtles, fish - everything except skunk. Of cattle, take mostly calves. Ate back of head & neck. Drag prey, often over 100 m.; later return to feed. Caraguano takes paca, deer, birds, smaller prey than tigre. We drove W. to San Pablo (about 6 km; small settlement), then turned L. & went 8 km to bridge over Rio Yacuy (20 m. wide, full & flowing fast), then went on road down river for 6 km. & descended. Walked about 1/4 mile away from river on dirt road, then parallel to river in dried up bed of a branch. This about 20 yds. wide, sand and mud, occasional small stagnant pools. Some pools had several fish on bottom, some back showing - sluggish; called guayabo; some 12" long. Saw two dead caimans, skulls broken. Occasional empty shotgun shells. Many footprints - apparently people came to hunt, fish, play. Occasional tangles of down trees across stream bed, & very muddy spots. Forest

Baranero —

(accountant?)

One man, said ^{jaguar} kill 3-4 cattle/yr.

Pay 400 b. for killing - but only hunt
when & those which kill cattle.

Journal

15 March 1973.

Hda. Urama, Yaracuy, Venezuela

on both sides w. thick heliconia + palms, much undergrowth, & spaced large trees to 30 m. Saw 2+ *storer*, group of American? *sp.*, parrots, 10⁺ red & blue macaws, several quaws. Occasional light rain. / At outlet on Yaracuy, Manuel said he saw tiger & ^{trach} cub there recently. In streambed, we found jaguar ^{trach} soon, going both ways, about a week old. Diameter 7 1/2 - 9 1/2 cm. Stride about 18". Also saw trach paca (often), occasional small cat (*juguarundi*?) & some apparent ocelot (5 1/2 cm. diam.) - some of last fresh, in ^{having human trach} mud. Saw a heard no monkeys. No ^{cate found;} fresh droppings - but are old droppings about 3 cm diam. possibly racoon; ^{apparent jaguar droppings - 4 pieces, middle each had.} (We continued downstream about 2 hrs. Manuel said no new tiger trach, but were some at certain place much farther on - rain grew heavier, creek bed muddier, so we returned to road, getting fairly soaked. / Going back there saw Pablo, man there said he saw trach & and 2 ^{jaguar} cubs a week ago - not joined somewhere to N. We plan to go to ^a different place tomorrow. Rain stopped about sunset. / Manuel said tiger sometimes goes over 10 km. Over to different area; later back again. These streambeds would seem to make for elongated home ranges along them. / Manuel had lived in this region about 30 yrs. He said many fewer cats & game because of cutting and reduction of forest. / Rainers calm evening; many bats evident in yard. Few crickets at lights. One large gecko under eaves near light.

16 March 1973. Higher ascent, above hills; calm. A small honeycreeper (reinta - as seen in Pto. Rico) worked yesterday starting nest on branch of lime tree in yard by house; today has fairly solid nest ball, 2' from end of branch, 6' above ground. / Took about ⁴ small geckos from walls, a floor, ^{sp.} mostly on concrete blocks to 3' up, in daytime; possibly feeding on small ants (a.m. + p.m.). / Saw about 3 large

Journal

16 March 1973.

Hcda. Urama, ^{nr.} N. Coast, Venezuela,

teide w. green heads & tails around yard; took a smallish one with
 spec. little green. Bat tails of large green ones in two snaptrogs. Caught
 large Ameiva in snaptrog, alive, & Cich kept it. Saw others to
 about 20" long & 2" diameter - as seen in Puerto Rico. | Our guide &
 transportation failed to show up by midday. Administrator arrived &
 supposedly arranged trip for tomorrow. | Evening walk to W. about
 a mile to coral. Saw many parrots - short tailed flying in pairs;
 long tailed in larger groups - at least one smaller parrot here too.
 Kiskadees common; occasional one on back of a Brahma. At
 dusk, many bats flying low over road near trees & water troughs.
 Saw one nighthawk, high up. No rain today.

17 March 1973. Driver arrived 0930 (due at 0700). He took us to San Pablo,

thence to Rio Yaracuy. Between, one 1/2 mile wide swamp w. caecilians, poison,
 gallinules, egrets, many water birds. Driver said he had taken two
capybaras here last week, one 80 lb. Then 6 km. down Yaracuy river on
 dirt road, to where men felling apamate trees & hauling out logs. Tractor
 & yarding made considerable openings. Driver & Manuel conferred there.
 They mentioned killing of about 8 calves at Aruco, Copra, and Baran-
 ero (hedar?) to N. Apparently a ♀ and large cub taken there not
 long ago, within 4 months, by another hunter - he took skulls with
 him, the men said. Manuel said when he hunted on one of these ranches, they
 paid him 20 Bs a day for a week, + 400 Bs for killing the jaguar. He
 said skin worth about 200 Bs. But also told of ^{current} offer of 500 Bs for killing
 cub & 1500 for jaguar in same area. He would like to hunt there,
 if I could stay a few days, but needed ammo. He said killed jag-
 uars at night up to 40 m. with flashlight & his lightweight
 rusty 16 ga. single. Both men said a bigger jaguar taken off to W.?

Journal

17 March 1973.


Hda. Urama, Venezuela

recently. They seemed not to know the hunting was illegal. / Saw 3 or 4 Aulacorhynchus toucan; two fed on green fruits of plant 15' up. / About 12:30 we started down same caño as on 15 March. Saw a 6' caiman, barely alive, in center of it, where no water for a few hundred yds. / Live & go dead guayabo (?) fish, some over 12", in small drying ponds or near them - but few tracks near; why don't racoons get them? / Went on down caño until about 3:15 p.m. when trail got narrow. The jogian tracks of previous day still common & prominent, about 9 cm wide across toes. Some areas, tracks smaller - $4\frac{1}{2}$ cm ^{max} across toes & light at front & back feet same size - judged jogianundi (locally "gato" or "origita"). Some of these among human tracks ~~are~~, evidently fresh. Photos of jogian tracks & cast two. There about 7 cm ^(small!) wide across toes at maximum. / Picked up one large dropping w. bone fragments & hair; pale grey; judged of jogian. / At one point where saw two monkeys, rather slow & quiet, climbing among palms at edge caño, about 5 m. up (black legs & tails, greyish head, brownish body; Cebus nigriv.?). Local said howlers, macaques (this one), and ^(leuca?) night monkey present this area. / Caño became narrow & vegetated, tho still a track, so we turned back. At 4:30 p.m. we found very fresh jogian tracks on top of our own tracks, made about 1:30. So one active in day! and following our tracks, in part. The track dashed across the caño for 5 m. through grey mud, animal sinking in perhaps 20 cm. - evidently it had been alarmed, probably by our approach, & fled across caño & into thick vegetation. I sniffed about but smelled nothing. Tracks same size as the old ones - presumably same animal had returned, to its after several days absence. / We backtracked it up the caño

Journal

17 March 1973

Hada. Urama, Venezuela

(cat had demanded)
 for about $\frac{1}{2}$ mile. Then tracks ascended R bank + went off into thickets.
 along caño it had wandered a great deal, as if searching for
 food scraps. It had visited half-dried carcass of a 3 ft. Iguana,
 but perhaps not eaten it. Once walked in mud to edge of a
 pond about 3 m. across, as if to drink. Usual stride about 18".
 Occasionally stepped over log about 1 ft. high. We found no droppings.
 We told no one about our find, as the wife would bring hunters; the
 next traveler, perhaps tomorrow, would ^{surely} see the tracks & report them. |
 Usual guava + macaw along caño. A small green lingfisher.
 Black + white sparrow-sized bird on ground, walking. Many Myio-
dynastes. | Driver took us back. We stopped at swamp between
 San Pablo + Rio Y. - several huge black birds with some white
 markings standing on ground, perched in snags, or flying - our
 driver said it was "aruco" (= screamer?), bill like turkey, crest
 on head, most like turkey. At least a dozen in this swamp.
 Water surface mostly covered with a light green plant of bowl
 shape , each plant about one ft. diam. Hundreds of cattle
 egrets perched a coming in in flocks.

TO Caracas

18 March 1973. Sunday. We departed for Puerto Cabello; thence went
 to Caracas. Smoky air as usual.

Caracas

19 March 1973. Holiday here. Looked in book stores. Visited La Isaura +
 Macuto on coast. Phoned Mondolfi.

Caracas

20 March 1973. Went to Mondolfi's office. There met Harry Gibson, airline
 pilot and former hunter. He knew Venezuela well. Said few jaguars now
 in Apure, due hunting because of cattle depredations. He strongly recom-
 mended Hato de la Cruz, of Dr. Alfredo Paul, in E. Barinas about 68°40'W. Animals
 protected. Fairly open for car track. Formerly had 2 jaguars in cage; or would

+ antenae

C v Guyana

- dead


1 Agric N

- dead, cut, need. Skip can 50mm

Journal

20 March 1973

Caracas, Venezuela

come to area where she was in beats. Many other birds & mammals abundant too. (Later, T. Blohm also recommended it.) This area about 50 mi NE of Bragual. Gibson also recommended area of San Juan de Manapiare, N. Amazonas. Antel priest there. Is by boat up Cño Paracito, especially to Laguna de Maquiri area - jaguars, tapirs, etc. G. said one of best wildlife spots in Venezuela. Not far from Yutoje but much better. He also recommended area S. of Maitre in central W. Bolivian, about $65^{\circ}40'W$, in foothills. ^{Some} ~~Some~~ Indians there. Cattle on plain to N., diamond mines to NW. (mines very destructive to all birds, G. said) another good cat area near ^{central} Catarata, N. Apure, about 60 mi. SSE of Bragual; formerly good jaguar hunt area. Canaima region - poor wildlife, mines; infertile zone. Visited Dr. Hector de Armas, Banco Desarrollo Agropecuario, & friend of R. Könen, jaguar hunter. He referred me to Hermann Brigg (of CIF, Plaza Castellana) for info on recent jaguar & ocelot killing for sale to Colombian buyers in SW Bolivian (esp. Callejas area). He also introduced me to Luis Rivas of La Salle Inst. Rivas thought that their conservator de mamíferos, José Manuel Peláez, had data on cats from Rome & others. Rivas said he well knew the region of central Isuraris S. of Palenque, around $8^{\circ}40'N$. He said rather dry open area except for frequent shallow ditches about 5 m. deep, which had brush & a little water & many ocelots. He said ocelots usually in dry country where some water. He cited several places where saw an ocelot - thought usually only one. / Later in day visited Dr. F. de Fries in altamira, pleasant quinta & garden; jaguar & ocelot skins, heads mt. goats, dh, mouse, deer - a former hunter. Perhaps 65 yrs., w. younger wife; both apparently Isurians. His ranch a triangle extending S. of Bragual , longer 1200 m. from airstrip. Had about 20 yrs. - nothing there at that time. Animals protected 10 yrs. Possibly 8-10 jaguars, + abundant capybaras (due to

Trans

Brought to Barnes - "late" daily.

Journal

20 March 1973.

Caracas, Venezuela

killed 2500 soon, or too many; white-tailed deer, antelope, red howlers, scarlet ibis, ^{sunni} amberjar. He said photographer Weidemann there now. He said jaguars recently killed calves, hinds; because of dry year? He said many howlers ~~were~~ died, perhaps others departed; due yellow fever? We can visit ranch, going with his driver on morning of March 22. 8 hrs. to Bruzual. ~~to~~ / River had said once shot jaguar while it was eating a river turtle. / Many turtles at Bruzual ranch - many eaten by jaguars, said de Friès. / Hector de Armas. said largest jag. taken by their group was 126 lbs., on Rio Apurto, many years ago. // Next visited Hermann Gierg, his, in office. He was about 30; antelope-skin; three huge photos in color of him w. jaguar carcass hanging up. (Also one w. African buffalo.) Apparently wealthy flying hunter. He was very upset by destruction of forests + wildlife in W. Barinas. Forest preserves entirely disregarded; only names; no control. People taking cats with snares, fish with huge nets. At least 40 jaguars taken one area since last May, + more ocelots. These sold to buyers who come from Colombia. (He did not know Medina). Interested in possible introduction of exotic game - mt. sheep + goats, mule deer, eland. / again talked w. Mondolfi. He said CVG, IAN, essentially autonomous groups bent on development - had put sheep in San Carlos, much of it sandy easily-erodible soil. Much felling, clearing, road bldg. Recent article in El Nacional, 18 March, told of plans to construct roads in Delta Amacuro (CVG area). Another told of planting 28 million pines on 20 000 ha. by end of 1973 in area N. of C. Islaya. Mondolfi said same wood pulp industry but less than Colombia. / He said he had examined stomachs of

Van Kindblad

Sibyll egatan

11443 stockholm

Sweden

movie photog. -

Guanas - doing
wildlife work.

AI Protig

77-10-40

Photo del cat (officer Principal - S. of H. Tammara
Plaque 322065 off.

77 21 75 form

Journal

20 March 1973

Caracas, Venezuela

jaguareundi + found much rabbit remains (from where?)

21 March 1973. Wednesday. Waiting for trip to Bruzual. Shopped for books. Visited "El Pinar" zoo + director Pedro Treblow. There are one pair jaguars, 2 pairs ocelots, + a lone margay (he said at Parque del Este a pair, including blind or). Quality + history of animals poor for reproduction + none yet (except for one litter at P. del E. - one died, one blind). He received a call from Silverio Gonzalez Plaza. Said "invasión de tigre" en el Hato de Carlos Plaza - San Fco. de Tiñados, Valle de Santa Rosa de Casanga, Guayana. Group planning to kill the tiger this Sunday. They have already killed two (tiger? ^{ocelot?}). / Jan Lindblad Lindblad, young Swedish movie photographer was there. He had been filming wildlife in Surinam + Guyana. We all went out to new site of zoo near El Hato, a huge high rise housing project, to photograph ^{called} peccaries. Took 5 with us. Released them along a small stream with thick grass at sides. The two tamers promptly escaped on a side both + could not be recaptured. Lindblad took his photos. He said jaguars + ocelots in Surinam at Braunberg Park + elsewhere. He had apparently been staying near one tribe (in S. or Guyana). Indian legends restricted them from hunting jaguars unless animal really decided to be dangerous to humans. But missionaries had encouraged to hunt for skins to sell, so ^{some} Indians now hunting. L. had argued biblical interpretation concerning wildlife with the missionaries. L. said conditions for wildlife + studies in Surinam were very good. He especially recommended Peter Taenissen, Land-roshcher, to help. / L. to show movies at T. Blo Blohm house on eve 22 - probably too late for us. / We went to home of friend of Treblow, - al Protig, in Prado del Este. He + wife had a F. tigris and

Journal

21 March 1973

Caracas, Venezuela

F. wiedii on leash, and a pair of F. pardalis in 4 x 8' cage. No breeding of last; ♂ smaller than ♀ but tried to copulate at times. They grunted a lot at night, he said. Much growling when we were near. The tigra said to be from Brazil. Only spots low on sides were open & margay-like. He said sometimes fed them 2 whole chickens each - about 600 gms. each - and they consumed all of it. He speaks English like native of U.S.; enthusiastic, tall, about 40 yrs. He knows most U.S. govt & scientists. He says their (Acad. of Science?) wants to start a research area & may respond well to suggestions. I suggested cat research center, especially for reproduction & application to wildlife management. TO Bruzual

22 March 1973. Waited for ride to Bruzual. Darwin came at 2 p.m., in a Buick.

He took us via Valencia, then toward Barinas, then on to Bruzual. Good paved road all the way. Into Portuguesa, land much settled w. small farms, probably formerly deciduous forest, now patchy second growth. After dark, many insects in air. Fairly new bridge over ^{Rio} Apure. Arrived at house about 1030 p.m. Several buildings; comfortable but no luxury. Administrator, Reinhard Bischoff, born 10 yrs, said Colombian buyers come offer high prices for skins. Often see gps. several Colombian ^{about} off-traveling. Within past few weeks, tigers reported to have killed a calf and a copy-bara; but no Nept ranch to S, Cien. Inglesa, established over 40 yrs; killed jaguar there & burned much pasture. No intentional burning on El Poverio.

Hoto El Poverio, Bruzual, Apure, Ven.

23 March 1973. Talked w. Wiedemann (sp.?), prof. photographer. He has been here about 3 visits, usually about 2 weeks. He said that he took the well-known photo of jaguar on a log over river in area SE of Pto. Ayacucho, where none now - he was perhaps first man jaguar had seen. W. was

Miguel Orellana - Foster drive
known and well
m. Platense

Carlos Emilio Ferrer -
Canoas - formerly known as Banguera
(see R.B.)

Journal

23 March 1973.

Hato El Porvenir, Apure, Venezuela.

in a kayak boat & took several shots w. 80 mm. lens on 6x9 cm camera, getting to about 15 yds. It had rained hard previous night & w. thought that the jag was drying out. Only saw jaguar one other time, when in boat w. his wife; there was great fuss among birds, & jaguar on shore; poor photo. He is very patient photographer and spends much time in the field; should know much about animals. / Penibard took us to S. part of ranch. Land flat, fine sandy. Some planted grass but mostly natural. Green grass, widespread decid. trees, & "monte" of dense cover. Ceiba, mango orchard (said to be 5 lawless there), calabash, other trees around houses. From car we saw a burrowing owl. Occasional white-tailed heron, some 100 yds from brush cover (10 a.m.). Occasional grouse yellow finches. R B said howlers formerly numerous but had died out (and moved?) with yellow fever about a year ago. He knew of no yellow fever in humans. He said now is deer breeding season; can see seal & w. male. We saw deer with small hard antlers. / Near house, said to be pond w. about 2000 alligators. / Near Platonal, ^{on ranch} family said to have captured young oulet recently & freed it. We were to stay at old ranchario at Platonal. / We met two bogreecaros. One a hunter who used to hunt for Cia Inglesa. Claimed to have shot 34 jaguar and lassoed 3. Hunted w. dogs. Called jaguar w. gourd (totumo, coroto). He thought I called faster than π . Only one I among all there, he said. He ~~that~~ thought cubs usually December, 2 maximum. Had cubs in cave or bank hole, often shallow, or under thick brush. He said bull dog biting neck & "nuss" from above. Jaguar drags prey, after several hundred yards. / We visited camp of fence builders. One man said he said he saw two tigers in area about a week ago. He also showed us old tracks in now-hard mud, probably made December or Jan, he said. None knew of

23 Mar c.h. 1973. Friday.

Hato El Porvenir, Apure, Venezuela

fresh tracks of jaguar or ocelot. Most ground here hard & dry, except at edge of water in the caño (Agua Verde). The area of caño teemed w. life. Water boiled w. schools piranhas and catfish; shores littered with dead fish & their remains, including some fish over 2' long. Hundreds of babas (alligators), some over 10' long. Hundreds of turtles in water & at edges; some about 400 mm across. Thousands of capybara tracks - we came on small gps. in woods, saw larger gps., with $\frac{1}{4}$ grown young, at water in evening. Some readily swam across the caño. Late in day, saw 100 yds. out into grassland from caño. Many probably over 50 lbs. They are now being shot for market (about 2500). They give dog-like bark in alarm, & single bark. Saw freshly dead Dasyatis by pond; carcass eating at it. Hundreds of black and of yellow-headed vultures; in trees & on ground near caño. We saw dozens of huge egrets w. crest on back; running, in trees, swimming (underwater for $\frac{2}{3}$ of 20 yard carrying). Turtles, alligators, egrets often on same beach. Occasionally a large Tupia ambigua lizard (called canapial, said RB). Of abundant water birds; wood ibis, white ¹⁰⁰⁺ storks, 2 jabirus, scarlet ibis 20, anhinga 20, cormorant 20, hoatzin 100, tiger heron 2, great blue heron 10, night heron 200 (incl. juvs.), white egrets (2 or 3 kinds), kingfisher 10 (2 kinds), spoonbills 20, vermilion flycatcher 20, howler 20, and others (cassowary-like on road in eve 20; thick-knee, 1). A real zoological park of reptiles & water birds! We walked shore of Caño Agua Verde & through adjacent "monte" but found no tracks, droppings, or other cat signs. The hunter said he scented w. dog from horseback, yet located no cats. He thought jaguar did not move far; much less than 10 km, he said. We looked at various parts

Journal

23 March 1973

Hato El Parvenir, Apure, Venezuela.

^{Verde}
of Agua Verde, in woods & along shores. Many periwinkle, up to about 10" long, among dead fish. In flashlight beam in eve, often 12 or more alligator eyes seen at once. Quit about 1930. Spent night at Casa Platanil.

24 March 1973. Saturday. We revisited several spots along Agua Verde but

found no cat sign. Caracaras consumed fish on beach. There are a few towers about 20' tall, put up for observing animals (old & poor repair).

Caught a fair-sized Iguana in 8" diam. hole in caño bank, with two others in hole. Turtles proved difficult to photo as quickly slid into water. Alligators on banks less wary, but up flight distance about 50'.

Gps. of 20± black & yellow-headed nutcrackers in trees 7-8 a.m., apparently roosting, but saw no concentrations at mammal carcasses. Mostly fed on fish near water. / Reinbat came; told us more water at Cano Patetanta

& loaned us maps. We went there mid-afternoon. Some water holes 1/4 or 1/2 mile or more long & 20-30m. wide. Few fed fish on banks. Rich in usual birds - also saw fairly tame saw-billed titmouse, which allowed approach to 10m. at times. ^{noisy} Hoatzins, anhingas, coronantes, chachalacas -

numerous. Spoonbills, egrets. Mod.-sized icterids in trees. Gallinula catching insects in air. / Many capylars, some allowing approach to 10m. (10' or less in light at night). Many gps. 12± included about 1/4

half-grains. Eels chased & 1/2 grain across pampa. When pressed, they circled back toward a caño and left down 3m. bank into muddy water & swam underwater. Some stayed under 1 min. +. Appar-

ently out all times day, often 50m. or + from nearest bush; rather tame. /

Found some saemians 300-400mm. long. Hundreds in the long muddy ponds, as at Agua Verde. But more forest here - trees to 30m. Much more calling of birds. In eve I saw a fox; we found many tracks too.

Dusicyon thomasi probably. Running along top of bank. / We found

Journal

23 March 1973

nr. Bruzual, Apure, Venezuela

about 5 old cat tracks near one drying pond; $7\frac{1}{2}$ mm. diam., trees slightly more separated than jaguar; owl? Bird & capybara tracks dominate & obscure other tracks. We swept dusty road & other areas clean of tracks. We camped by water hole in caño. Bats out before dark. Howler especially noisy. Found a Didelphis by eyes hole. Coonars, howlers, capybaras, others making noise all night; sometimes ^{howlers} in spreading branches. A deer & capybara walked thru our camp at night. Accessible watered caño continues at least 2 miles near good dirt road; branches leading off to S., or small ones through grassland to N. Capybara dominant wherever water. Tamar here - perhaps little killing yet; often gave "alarm bark" but did not flee. They & big equator can swim far & well under water; usually submerge upon entering when frightened. But occasional capy. groups swim across w. heads out, including juven. / In Agua Verde, Criba found an anacarda about 4" diameter, wrapped in brush under surface of water; we could not make it reveal head or even move much by poking w. stick. Only snake we have seen so far. No macaws seen in this area; no monkeys seen or heard. / Flushed a caprimulgid from nest on ground in forest with two pale orange eggs. Heard some calling in evening. / Capybara eyes hole dull; often taken for caprimulgid at larger distance. / Almost no mosquitoes or biting flies.

24 March 1973. Sunday. Much bird racket in early morning. Howlers, livingfisher, arango, bellula perched in deciduous tree overhanging water by camp. / Walked along edge forest, edge caño water, other spots, & found no fresh cat tracks. But many of capybara, some of fox. About 7 a.m. I saw a fox trot up the road, pause to urinate. About same time I saw adult Crocodon walking slowly on same road, perhaps looking for food, for about 5 min. When

Journal

24 March 1973

Hato El Porvenir, Apure, Venezuela.

it left road on one side, another walked across road following first. Woods bordered road here. Only $\frac{1}{2}$ mile by road from Loguero's family house, so it seems they do not kill the wildlife. | Again saw the Cerypyga bird at short distance, walking up caño bed. Also found a mata-mata turtle, carapace 13", walking slowly; we washed it off, photoed, released in big pond. | Mod. breeze today; smoky haze & cirro-stratus clouds. | Returned to Casa Placeres here at 10 a.m. Still no gasoline. | At one point on road, a white-headed small caracara stood perched on large yellow bull lying down. Loguero's - pairs & small flocks seen. Common "Brazilian cardinal" or "bandera alemana"; common around barnyards. a flock 50+ included about 20-70 red headed adults. | In one ^{green} spot in field, flock of glossy ibis, many jacanas, 2 jabiru, 1 scarlet ibis, 1 big white egret, a few yellow-necked ibis (theristicus), & a few cattle - in area 50 m. across w. large green weeds. Near houses, large & small doves on ground, Forpus parrots, blackbird flocks, kingbirds. | We returned to Caño 70 about 4:30 p.m. We took a few dead fish to put out as bait, caught a few piranhas for same. Hung these on sticks or fence wires over soft ground, or put dirt on ground below to get tracks. | Found old tracks, judged ocelot (7 1/2 am across trees) near small mud ^{pond}. | Again saw Cerypyga, one. About 2 km SW of Casa Mercedes, in Caño 70 where about 25 yds. wide, we saw a baseball-bat-like object, end up in water, moving erratically; on closer approach, proved to be an Inia bill. We saw at least 4, possibly 6, at least 3 being smaller & darker grey dorsally. Larger one very pink fins & tail. Occasionally came up & blew, or sent bubbles out, or ^{waved} ~~waved~~ a fin or tail. Other times, water boiled & porpoise not visible in muddy water. Cichs sat on bank & streambed points of hair comb in water; this sound ^{apparently} caused change in dolphin activity. Some

baw
photo

James Anthony Rose


Identical - same. Can Measure.

Journal

24 March 1973. Sunday.

Hato C'Porvenir, Apure, Venezuela.

b & w
photos

came near him & water bailed 10' from shore. Two came from 100 yds. E. to site. I tried to take b & w photos in evening light. / At dusk, about 30 small bats (pointed ears, & spade like & one over each eye, tail out mid patagium ) fluttered low over 5 m. deep, stagnant pond. Along road saw one Dasyatis. Near one fish bait saw Didelphis. Muggy evening. We camped by water in caño as before.

25 March 1973. Monday. Three fish baits taken; trader indicated opossum,

with fox also at one. Near the old ocelot trader, 10' from fish bait, we found new ^(shot and one) ocelot trader, 7 1/2 cm across toes, stride 450 mm. We traced these about 75 yds in open bottom near small ponds; no droppings or evidence food eaten. / We walked up a tributary bottom, mostly sandy & bare about 5 yds. wide, some ponds w. small alligators.

Cike found an acoreado in one pool & saw a Crot w. white belly. He found ^{several} fresh tracks, 8 1/2 cm. wide, of apparent cat but toes & pad more elongated than jaguar; = puma? / We returned to previous site & again saw several. Once one rolled out, showing head & side, then another of similar size followed. One raised head out 5 yds. from Cike ^{as} to look at him. Later, one gave great ^{slap} of fin or tail about 10' from him as he sat quietly on bank. Bischoff later said he thought there were about 6 in Caño 70, & that they came when he was having each dam built at time of falling water, so landlocked until winter. A larger no. about 3 km. downstream to E. of Bandición, he said. Perhaps 20 in the ^{two} caños. / We saw one gp. 50+ jabiru stork in pond of Agua Verde. Occasionally saw a Burhinus by roosting in grassland. We drove back to headquarters, as about out of gas & supplies. Apparently Chiguire hunter had been working w. of Agua Verde; we said he saw a tiger & days ago. They are moving to Platón area to hunt to E. / On to radio

Journal

25 March 1973.

Hato "El Porvenir", nr. Bruzual, Apure, Venezuela.

from Caracas, de Fries suggested search for jaguar signs near Casa Izaya, to E. of Platón (our former headquarters). Perhaps chiguire shooting had driven them there. In about $1\frac{1}{2}$ ha. of mango orchard (30 m. tall) mixed with other trees, we saw ^(A. seniculus?) howler monkeys. Reinhardt said two came about 7 yrs. ago; gradually increased. Saw one inf., one from last yr., 2 ♂♂, others. They stay in mango area year round. Rarely howl. Come to ground to water trough for water. Also in yard, about 25' up in 50' tree, a Myiobuteo ^(glaucopterus?) perched upright; said to have a young one there. Said to have been here 2 yrs. (Weidmann had photoed it.) We watched loading of dried salted chiguire meat - looks like thick hides (not chunks). Sells for 5 B. wholesale in Valencia, about 8 B. retail; to 10 or 12 in Caracas. Hides of no value, they said. We had the meat for supper; rather dark, stringy, but good flavor + little fat in meat. Later we saw all the red howlers! Larger ♂, the seemed much smaller than Barro Colorado howlers. 2 ♀, each w. infant. And two of intermediate age classes. All appeared healthy, in reddish brown pelt. Play among all smirks, except perhaps smallest. Reinhardt said almost never to ground. We briefly visited a lake, Salina, about 5 km. N. of headquarters, where Weidmann was photoing. Indeed, roseate + carmine in water + on shores. In one corner, storks, spoonbills, and 200+ ducks; all took flight when I approached to 100 m. On a nearby shallow pond, dozens of jacarás + a group of chiguires. By radio, we received permission to visit Hato de la Cruz on Wednesday. A man brought word that "kin" hill, covered, found near Agua Verde; we plan to see it + the Casa Izaya area tomorrow. Much talk w. Weidmann in eve. As others, he said Gran Salina area had few animals. Llanos best for seeing animals. Some good forest in W. Barrios, formerly, but now much cut down, including forest preserves.

26 March 1973. Tues. We took jeep + went to Agua Verde area where dogueros found

us remains of medium-sized chiguire in dry grass clearing. He said he had

Reinhardt

Oct-Nov - boys again. 4 boys - 8, 14 yrs, 21.

(5x5 km)

measured - 5 hr. den. birds made - some chub.

Oct. - 13 yrs, 1500 waf. - but Oct-Nov. Oct. Oct. birds.

Oct. - 11 yr. 100 - group 5.

Yield. - 1000 - birds with h. in measure

Oct. - 8 + 2 waf. - birds w. on Oct 20 (70 km.)

Journal

27

26 March 1973. Tues.

Hato El Porvenir, Apure, Venezuela.

(= puna)
saw a "león" feeding there about 5:30 p.m. day before yesterday + that remains had been partly covered w. grass. Last night it (?) returned and ate rest. That group of men, camped at Bengüin, had no further news of jaguars or ocelots. We went to Casa Izaga, near SE edge ranch. A. Bogueano there 10 months. Said he had seen no jag. or curaguano. He went with us to the "cavaler" to E., rough raised dirt road. We forded water of C. Izaga, then on to intersection with C. 70 (^{poole} ~~road~~ only). Man living there, small store, said no recent tracks jaguar, but man from nearby town killed big male to E. on Caño 70 about one month ago. Area E. of savanera much burned, including edges gallery. Empty rifle shell boxes. No fences. Another ranch. Cía Inglesa to S. also said to be much burned. We walked up + down C. 70 looking for Curaguano tracks; people to E., pools to W. but no tracks. Returned to Izaga but stuck in the caño for a jeep on way - took us rest of day to get out, clean engine, + get back to ranch - with financial aid from "Pedro." (= Reinhard Beichoff). | B. said that by

28 March 1973. Wed.

radio, Bogueano in field reported: Peron (Casa Mercante), fresh tigre tracks near water trough. Antonio (10 km. to W.), saw a tigre w. 2 subs. | RB said that best time to find in Oct. - Nov. in "baja del tigre". Much muddy ground + no cattle to cover tracks. Many young hermit such, + curaguano ate many of these. He made fence check on mule in area last year + saw tracks of 4 jaguars in area about 5x5 km., in area where we had camped (4, + w. large young, big ♂). Curaguano tracks numerous - also in N. part of ranch. He estimated 1500 ocelots on ranch, 15 jaguars. He thought ^{my} rest of track from Caño 70 too large

Journal

March
30 February 1973

Rancho Grande, Aragua, Venezuela.

But collector P. Antonio Bermudez, showed me ocelot skin of one taken in w. apure (San Camiló area) in Feb., half grown, & 5,700 gms. | B. said usually hunt at night w. light. Ocelot may stand fast or come toward light. The Rio Grande area was heavily hunted forest, similar to Rancho Grande, with stream nearby. He said they heard jaguar roars in San Camiló area. Previously heard SE of La Urbana in Bolívar. B. thought that H. Pittier park good for F. wiedii; seen on road in past (as C. Mondolfi mentioned). | C. Mondolfi arrived. Said one or 2 jaguar cubs captured & released on Hato de La Cruz recently; a ♀ also (+ photoed) (by brother? of Dr. Paul). | Seen recently there. Presumably we go there next week. | Later, discussion w. Medina & Mondolfi. Medina thought only solution to protection jaguar was large preserve, as in SW Guianis. | In U.C.V. collection, saw at Rancho Grande 2 F. tigrina from La Culata, Mérida, 3000 m, taken in early 1940's. | Medina let us go over confiscated skins. Two of jaguar. A mixed pile of 305 included 203 I judged to be ocelot, 36 F. wiedii, and 66 unidentified (mostly fuzzy juveniles). Skins of ocelots to about 103 cm. from tip nose to base tail (but about 35 across chest), skins of wiedii to 69 mm. Many skins had no feet; many had partial tails; some lacked ears or entire head. Photoed some. No tigrina recognized. Many labeled Maracibo-Zulia, decussate; presumably not smuggled into Venezuela. Much variation in spotting among pardalis; much less among wiedii. | A map in museum here shows location 7 nat'l parks, 7 forest reserves, 3 nat'l monuments (like quachero caves). | Medina said tracks of jaguar seen at Chiriviche recently; moving one area to another? Mondolfi to notify us by radio when can arrange trip w. Dr. Paul. | Cool & partly foggy most of day & evening. Few insects at light on porch. | ^{Juancho} ~~Sara~~ Gamero of Maracay said to have photo: 3 ocelots, 1 tigrina (killed).

Journal

31 March 1973 Sat.

To Chichiriviche, E. Falcon, Venezuela

With Osvaldo Obraier + another boy, we drove to Cuara in the Chichiriviche faunal preserve (13 x 4 km^{about}). Via Valencia + coast of Golfo Triste. Many coconut groves along the coast. Some ^{extensive} thickets of mangrove + associated mata, green even now. And fairly dense green forest in hills inland, as there was near Arama. These hills said to have a few jaguars. The Arua Valley planned for extensive agricultural development. We entered the preserve and went a few miles through low deciduous forest (5 mi.) and red soil clearings (dried ponds) to campsite by shore, where extensive mangroves. Said to be many flamingos at Chichiriviche - sometimes thousands. We saw a few herons, scarlet ibises, cowbirds, parrots. Hundreds of tracks of foxes and raccoons in clearings + dusty spots; some appeared to be of rats. Saw seal bats in evening. A steady breeze from sea. Walked about 2 hrs. before sunset, looking at tracks, but saw no mammals. Occasional deer tracks. Said to be possums (*Didelphis*), + some tracks seemed to corroborate this. In evening (no moon) spent another 1 1/2 hrs. walking, and about 1 hr. around midnight. Briefly saw yesterday 2 mammals on ground, but could not identify. Probably some ocelots and jaguars are here; one local employee thought so. This a recently established reserve.

1 April 1973. A hard down, another hour or so of search, but saw no mammals. Some fox + raccoon tracks atop my footprints of yesterday, however. Occasional long-nosed (Teiid?) lizard, medium size, under boards running. Saw no Tupia or Iguana, or the big arid mammals. Probably this green coastal belt, largely deciduous, supports ocelots. Land crabs, deca, snails, provide much food. About midday, drove back to Rancho Grande. Hot in lowlands, foggy at R.G. Hundreds of people stopped or peddling along road up, tho only are a few small

El Nacional - 2 April 1973

a full page of about 6 articles by various men (F. Tanaya included) about deplorable burning & conservation in Venezuela.

Several other articles in same & other papers re fire destruction especially. Joe Authen unhappy about litter, hunting, fire conditions.

Prof. Paul Kruger - Dept. Engineering, Stanford - a student devel. plans for canal connecting Orinoco - Rio Negro & other rivers.

Corp. Venez. de Guayana - development Guayana.

Journal

1 April 1973. Sunday.

Rancho Grande, Venezuela

poor grounds. All roads & corners rutted. Campgrounds & parking places seem much needed. Essentially no trails, & entry from Maracay on foot forbidden (a F.A.C. guard always at El Limón entry). To Caracas

2 April 1973. ^{Monday.} No word from Mondolfi. So left Rancho Grande about 10 a.m.

for Caracas. Arrived about 2 p.m. Mondolfi back to office about 3:30. No further communication w. Dr. Paul. / News clippings mainly about extensive fires at this season - conservationists deploring. There had been a 3-4 day fire on Monte Avila in late March; 19,000 man hours spent on it. Mondolfi much occupied w. some conservation meeting. Phoned T. Blohm; he said A. Paul was at ranch yesterday; thought to be 20007, ♀ + 2 subs on that ranch now (H. de la Cruz).

3 April 1973. Tues. To E. Mondolfi office. ^{Caracas} By 10 a.m. had not arrived.

So went to La Salle foundation, in large govt bldg. near N. end of Av. Mariperez. They had a skin of tigrina, ruvidus, 6 perfulis, but apparently no other information. But very hospitable group. / Returned to Mondolfi office. He had reached Alfredo Paul & we could get flight to Hato de la Cruz tomorrow. / Phoned De Fries & thanked him for ranch visit. Phoned El Pinar - Trabban gone to Maracay. Prepared to leave. Caracas

4 April 1973. Wednesday. Mondolfi's driver failed to show up - so took taxi & arrived at Aero Club, La Carlota airport, 1/2 hr. late. Met Dr. Alfredo Paul, early 50's?, former civil engineer. Quiet & thorough in his way. His plane a turbo Cessna, 2 engines, about 7 passengers; but only us 3. Automatic pilot & full dual instruments. off at 0900. Usual smoky atmosphere. Up to about 8500 ft. & headed about 230° toward Hato. Ground below hilly, dry, with brush & trees in pockets hills. Burned rather, some

El Fane CLXVII Nov-Dec. 1955
Marsabit - article on p. 200, etc.

La Valle Inst. - 74-25-05

1960 Altar Agnelli de Venezuela

Min. A. C. Div. Plant. Agrar.
Large paperbook - crops of land use,
vegetation.

Map 12 - Dr. Kurt Hrad - vegetation (cont.).

Inst. Forestal de Venezuela, de Universidad
y Copacabana, Montevideo, 1959

1961, Altar Foresta de Venezuela

MHC. Div. Res. Nat. Reser.,
Caracas.

Specimen - F. Tigris - at La Valle museum

Umayyad, Rio Negro. Area. Range - for J. J. J.
24-1-51, 1650 m. 5 km (juv.?) + adult.

about La Valle - 4 parishes

1 unicolor (black/pinkish)

1 more adult.

No. Tigris or ecological notes.

Journal

4 April 1973. (Wed.)

Caracas \rightarrow Hato de la Cruz, Venezuela

smoking. Dry watercourse. Guavira similar. We passed town of San Juan de los Morros. Over Cajal - some green trees and less hilly. Mata covered many hills. Is greenish gran plate. Guavira in S. Cajal, + rolling. about 80% grassland. Rio Guavira flowing well + green on each side for perhaps 1 km. - large muddy pools water in area. Descended to ranch headquarters. Some muddy caños and perhaps only 50% grass here. a nice house w. screws, generator, stove, refriger., stock of food for use. The ranch 30 000 ha. Paul bought it 16 yrs. ago - undeveloped. Now building extensive fences to divide into pastures. about 8000 cattle. Breeding discouraged but several named areas due accidents (?), some said by outsiders hunting morocoyos (turtles). / about 2 months ago, ♀ and 2 cubs at saw carcass. Cubs captured w. lassos. Both ♂♂, 20 + 32 days. Paul made them release cubs later. They came back near Pancho's (man in charge) house. Now thought that cubs have left ranch. Most thought tegia also gone. ^{One} ~~no one~~ worker said he saw tegia at close range 2 days ago about 9 p.m.; threw wooden hammer at it. Another worker, "Tanya," thought tegia came here to breed, then left. / Formerly they had a captive ♀ near Pancho's house; he traded it for some wire for fences on own ranch. / 3-4 weeks ago, wife of Paul met tegia when on horseback, a few km. from ranch-^(Caño Casanovi) house. Brother (in law?) had met one at close range + photographed it. T. rarely seen within 100 m. of house. But essentially none seen last 3 weeks. Pancho told of tracks along road for about one km. a few dirt roads to N. + E., but not to all parts of

Journal

4 April 1973.

Hato de la Cruz, ~~San Juan~~

ranch. ^{truck} Sumner trail can be used to Arsimendi + Santa Coloma. Paul says ¹typical sandy hill cattle. Probably feed mainly on the forest pigs here - also deer, chiguire, lopas, etc. In early days on this ranch (16 yrs. ago), they killed jaguars. Paul used to kill foxes because they killed quail, but T. Blohm convinced him that foxes valuable as hill snakes. Paul would like to introduce exotic gallinaceous birds. He said that rabbits now few. He said that a few years ago, hoof and mouth disease killed off deer but did not affect cattle. We took fence inspection ride w. Paul. In muddy pond of Caña Carrizosa, a cow stuck in mud; about 50 vultures, most or all bloody, perched in trees + on ground near it. We hauled it out. In one pond we saw several Caiman (= babos), jacanas, chiguire, a few turtles. Small fish abundant + sometimes jumped out onto water plants. Saw scarlet ibis, spoonbill, various herons, cattle egrets, 2 red-blue Ara, group parrots, military shrikes (?), orioles. Paul said two birds monkeys; howlers + "capuchins" (= ?). We saw several ^{black} vultures + pre-scaras feeding on fresh pig carcass. In general, avifauna similar to Hato El Porvenir, but fewer deer, caiman, jacanas, chiguire. Said to be ^{"Luisa"} toro in westernmost sano. We went out on roads in evening on motorcycle for about 1 1/2 hrs. We came close to 2 foxes on road. Flushed several caprimulgids from road. Saw owl w. bright red eyes in top tree in grassland. No planted grass - mostly tough Paspalum (?). Hot day but a few clouds in afternoon. Paul returned to Carrizosa about 5 p.m., leaving us with Toyota jeep, motorcycle, house, + other hospitality. Chachalaca called near house in evening.

5 April 1973. Chorus of Alouatta about 6 p.m., mostly to N. about

Journal

5 April 1973. Thursday.

0700 we left w. Antonio, "boguena" here about 12 yrs, to look for jaguar & ocelot tracks & signs. We took road to N. Passed a cañon of large cañon w. several mettles feeding; 50+ meters from shore, & no water nearby. A ^{freshly} dead Dasyatis by road (hit by car?). We stopped at edge of water "belt" & walked 100 yards to a drying muddy pond, at area called "Los Caballos." A few old cattle carcasses there. Vult. seen too. Some muddy water. But we found no cat tracks. Then went about 1/4 mile S, w. about 200 yds. to water in Caño Corcos (spell?); muddy, bubbling w. small fish. Saw 2 picure tops of sticks; a little fence w. opening, where rove from bent pole could be set or over. At end of caño, a few small jaguar tracks, apparently fresh. About 50 yds. distant, by edge pond, a pair of ocelot tracks, a few days old. Antonio said cats usually kept feet on the harder ground, as hard to find tracks by water where bank steep. Here also, flock of about 30 ^(= chipchero) noisy hoatzins. We flushed groups of about 6 Cra doubantoni from tree; fairly tame. Tracks of chipichero here. Tracks lapa, ballo, on shore. Antonio thought huala was preferred food of jaguar, said they caused disturbance & occasional monkey fall. Yesterday we saw a Tamandua (= oro melero - uniform orange color) seen w. had in hole at base isolated tree; approached to 10'; it climbed tree rapidly. They say Myrmecophaga also here, & 2 kinds of cachichano (Dasyatis novem & "salvans"). About 1615, left w. Antonio for Caño Corcos area. We looked on dusty trails of dry waste. Found tracks of monkey, probably Cebus. Walked S. along Caño - by to N. when to muddy area, saw 2 muddy ottle lying on banks, one almost dead. Another freshly mined. Several

Journal

5 April 1973.

Thurs.

Hato de la Cruz, E. Barinas, Venezuela

"Tangan" said he saw a small "lion" today, 2-3 km. S. of airstrip

cattle carcasses nearby or in mud; apparently heavy losses from this trap. Several feral pigs here too - they seemed capable of going through the mud. We saw several Odocoileus; at least one or two with several points on hard antlers. Area seemed unpromising; too many pigs & cattle. So back to airstrip & to S. at house of Tangan, saw the cage, about 5' x 8' x 3', where jaguar had been kept 3 years. Tangan said that other jaguar trader had come to edge of farmyard area, about 100 m. distant, but he had not heard roaring or seen the animal. Apparently others had somewhat inflated their warts. He had many goats & ground barren beneath scrubby trees. We went on S. to area of Antonio's house. There a dry caño but one pond in dried mud bottom. We found no cat trader there. Waited until dark. (New moon.) Then looked w. flashlight. A Delphinus seen & came to 2 m. to squeaker. Later we walked up dry caño & back. On return, I saw reddish bright eyeshine near the water; animal did not stay quietly, so soon view, but at least fox size & possibly an ocelot. We saw a few other yellowish eyeshines, probably of foxes. Heard caprimulgids. But generally very poor in life - few insects or bird calls or spiders. Antonio said often ocelot trader there & sometimes jaguar. We returned to house about 9 p.m. / ~~For~~ Two cream-colored frogs inhabit the bathroom; called loudly in middle night at least once, & at least twice previous night. They can cling to vertical walls.

6 April 1973. Friday. Strong calls chachalaca & howlers in early morning, about 6 a.m. We took jeep & a boqueron & drove to La Mula, arriving 5:00. Searched dusty road through "monte" for trader. Usual fox, raccoon, deer, opea. One set of Myrmec -

Journal

6 April 1973

Hato de la Cruz, Carma, Venez.

aploza tracks. But none of cats. Parts of undergrowth burned. Other parts, ground covered w. large dry crunchy leaves. Saw pair of Ara - said to nest now. At another route we saw monkey tracks in road dust, Cebus? We saw 2 Alouatta in one tree; fairly tame. Another place, gp. of 4 including one with infant riding on back. Occasional woodcreepers seen on trunks. Found only one pair of ocelot tracks in about one hour of search. Went to a near-dry pond & mud sink called La Tapa (Locaya?). A Caiman buried in mud w. part head & body showing. Remains of peccary hide here. Myrmecophaga tracks in mud. At least 4 Oryz in one tree. About 10' across central "pond," which boiled w. small fish. Then on to Los Cabellos again. Found a few fresh ocelot tracks at tip of water. Water for several hundred yards, about 50' wide. Numbers of dead catfish, piranhas, others on banks - eaten clean. About 30 hoatzins in each of 2 trees about 40' high; fairly tame, very noisy birds. A few more dead & dying cattle near edge caño. Black muttons in trees, but saw no living muttons. We found remains of Didelphis. Also skeleton of Felis pardalis (saw skull) on the dried mud. Lastly, to end of caño about 1/2 km. to S. (also there yesterday). Fresh ocelot tracks in mud at tip of caño. Water extended for at least a few hundred yards. Many hoatzins in bushes & trees. We saw one Cebus (pale brown capuchin) about 20' up in tree near caño. Woods very dry here too, but about 20% of trees have green foliage. Some is green; some 30 m. tall & spreading that wide. In mud we saw many chigüire and rocon tracks, some of foxes, deer, caimans. We saw one cream-colored Tamandua about 20' up in green tree, resting in branches. Found no apparent jaguar tracks.

Journal

6 April 1973. Fri.

Hato de la Cruz

Venezuela.

this morning. (Some in hard mud a few months old.) / Usual analogy
 haze today w. 10-15 m.p.h. breeze from E. & a few scattered clouds.
 In forest at La Mula, yesterday, we saw one group of owl traders on main
 road, of small jaguar on a dusty side trail. / Men here say that owls eat
 many chickens at houses. / 5 April addenda. After Los Caballeros area, we

↑

went N. a few km., then walked SW thru fresh burn to "Huacharagura", a near
 dry caño, arriving about 0930. Here we saw at least 2 Eupygna. About
 100 Boutyris in one bush close to only water hole. Coccyzus 3' long
 buried in mud; came out when prodded. In tree in daylight, a large

photo.

(brown)
 owl w. spectacles. Saw 2 agoutis in forest. One site, tree appar-
 ently cut by burning base & base (or honey) taken from
 upper branch; fire cleared 10 ha. or more. Our guide, Antonio,
 paid no attention to smoking logs, spades, flamer. / Along the
 caño at Huacharagura we saw at least 5 King Vultures, includ-
 ing a black young w. tinge of color on bill and small
 caruncle, at least 2 others with heads partly feathered &
 wings gray rather than white. So probably nest here! / On the

5 April

road, we saw one Dasyatis rosenmulleri in open. / At one point,
 a flaming fire in grass at edge mantle. Buried on ground around
 it, about 30' out, were about 10 Butler-sized hewer (reddish
 brown mantle, gray below, black wing edging), presumably getting
 insects or rodents driven out by fire. / April 6 - same general
 area, we saw at least two (white-tailed?) hewer, hovering, diving
 to ground (not in the burn). / In evening we returned to Los
 Caballeros caño. Put out sardines near water & dusty trail. Brushed dust
 off smooth with branches. After dark, looked for eyeshine. Saw many eyes
 of Coccyzus but none of mammals except a few deer, and about 4

photo

Journal

6 April 1973.

Hato de la Cruz

Venezuela

Sylvisagus (3 on road). Along road, saw 2 or 3 mice, but generally nothing in about 20 km. of driving (to El Toro windmill, V edge ranch). Returned 10 p.m.

^{Saturday}
7 April 1973.

About 8 a.m., I went to Los Caballeros area, Eike to Los mulas. Dry windy day. On ^{smoothed} dirt trail near my sardine bait, a few tracks of ^[or puma?] jaguar, about 9 cm. diam. across toes. At other spots I found no ^{fresh} recent tracks of cats, in spite of bait. Yesterday we saw two Sciurus grantensis? in fan palms & 20' trees at edge monte, Los Caballeros. Eike reported finding ^(at La mula) two Dasyurus, & two gpx. collared percaries which joined to one gpx. of 25. No tiger tracks, some possible ocelot tracks. Again saw a few small hites low over savannah. Los Caballeros & Los Mulos about 7 km. apart - could not? be same jaguar? We searched for tracks on road & trails in other monte areas; none of cats found. Returned to base. A very dry windy day; fires started up & smoke visible sev'l km. away. About 3 p.m., Alfredo Paul arrived w. wife & another man. Paul said that ^(about 5 p.m. - m. the "presa") place she saw jaguar a month ago was about 1/2 km. S. of bog on ^(different ridge) Cascaón, near the dam. A second ^{+ photographed} seen in ~~that~~ area within a week. The ^{"len"} ~~evolution~~ said they saw a puma ^{"len"} ~~diving~~ at Jabuta water windmill, about 7 km. E. of side, on two recent occasions. We spent time 5:30 - 8:30 p.m. along road through monte at Los Mulos. The ground fire had progressed 5+ already burned about half the area, including site where Eike saw percaries. On road we saw dozens of tracks of Blue monkeys. Saw Alouatta in top large green tree in moderate smoke. On road, many tracks deer, and one long set of Tapir tracks, & others. We saw a few rabbies and coprimulgids, some unidentified eyeskins, & a Copesthes walking in burned area. Hoped to see ocelot, but none sighted in flashlight beams. I saw ^{reptile} eyeskins, red, in tree, 8' up in branches; thought it a moth, but it ^{= Boa?} proved to be a tree snake (saved specimen). Agile, twisting, could flatten

spec.

Journal

7 April 1973.

Hato de la Cruz, Venezuela

body laterally. Took photos (8 April). Saw at least 4 *Teranion* (*Cryptotellus*?) walking on road or on burned ground in woods; rather tame - best view I can remember. Fire made food scarce? Fires burning hard at 8 p.m. - at least 3 going on N. part of ranch. Some large *Iguana* tracks on road.

^{Sunday:}
8 April 1973. We visited Las Caballeras about 0730 but found no new cat signs.

Later to Las Mulas - *Myrmecophaga* tracks on road. Also *Caiman*, tho far from water. Saw green *Iguana* in tree. Saw a *Cebus* (*expansus*?) monkey alone, in tree in burnt forest. Found dozens of tracks of *Ocelot* on road, perhaps all of one animal (possibly a second, smaller). Tracks 5 cm. diameter. Extended a few hundred yards on road, but found no droppings or urine spots or scent. Saw pair red + blue *macaws* on branch 80 ft. up. Not calm day. Returned to "sede" about noon. Prepared to depart. Fires increased again in afternoon; Paul deplored + said could do nothing, but no attempt at all at control when fires merely smouldering in early morning. Took off about 4 p.m. Drove square km. ^{of route} on ranch smoldering, & more on other ranches to N.E. Reaching Caracas, barren hills w. bushes bottom of canyon + occasional green bottom where apparently irrigated. Fire has probably greatly increased ^{barrenness} of N. Venezuela. Caracas air smoky as before.

Caracas, Venezuela

9 April 1973 Monday. To Mondalfo's office - then to arrange departure & to El Pinar, where talked w. P. Treblan. He had outline for proposed research center near Urena in Tachira, to be sponsored by Soc. Physics, Mathematics, & Natural Sciences. This place would include compounds for breeding research on cats, & also serve as tourist attraction + produce stock for zoo. Again looked at the zoo cats. Returned to Mondalfo. There again met A. Brizuela ^{Natl} S. of Parks. He said there was park project along Rio Guasare in Sierra Perijá, which probably had ocelots and jaguars. Park at Cueva del Toro m. Santa Cruz de Bermejo, Falcon, prob-

Rest - must drainage & desc. planned.
Too wet for good growing now.
"Palmito" - hosts palm - production.

Journal

9 April 1973

Caracas, Venezuela

ably had transient jaguars. The Dona Paula area SE of San Felipe was planned as a refuge, & hoped to include a private ranch to bring area to 18000 ha. Another refuge project NW of San Fernando in E. Barinas, including swampy areas, area NW of Caccara in Guayana might make a Nat'l Park. He said ♂, ♀, & cub recently seen on island at Isaricita, near La Balsa W. of Caccara, & that ranchers planned to hunt them. The Carlos Playa ranch, where hunt was planned, was in Guayana S. of San Juan de los Morros; same area where Mondolfi invited to hunt. Breguel said animal population low in Territ. Amazonas, much of it on poor plateau soil.

Umana zone in a "kalsa de humedades" extending in from coast; Breguel thought much of it would ~~be developed~~ ^{not be developed} for agriculture - at least large forest reserves would remain. Mondolfi had not read my Venezuela account, after a month in his hands - busy man - so copied it.

10 April 1973. To airport and took ^{To Panama} Panam flight to Panama, passing directly N. of top of Sierra Santa Marta. Clear sky, ^{above} there, barren, some blue lakes, and small snow caps; photoed. Rest of sky cloudy until [=?] descended. To Borgan Memorial Lab where talked w. Monday. Asked about nearby areas to see ocelot sign, he was hesitant - mentioned Cerro Angel. (Works on ectoparasites, rodents mostly.). Then to Smithsonian office & talked w. Neal Smith. He said black jaguar recently killed on Pacific side, east of canal. He said that 2 ^{ocelots} in ammo dumps in Ft. Kobler area said, by soldiers, to have apparently lived in a culvert; the monkey farm project there abandoned. He told of recent trip to Surinam in Feb. - at Vollenberg, he saw 2 jaguars come to pond near house in evening, in spite of generator noises. S. part of Surinam still in vast forests. Others thought ocelots through Canal Zone & even B.C.I., but no specific mention. A lean gray

Journal

10 April 1973.

Panamá, C. Zone

woman, recently of Ithava, interested in jaguarundi & other carnivores, had been recording vocalization on B.C.I. She ^{now} had small ocelot cub, purchased for \$80. Talked by radio w. Nick Smyke, & will go to BCI with him on 12 April. In central market we saw skins of puma and jaguarundi for sale. Dealer said ocelot skin would be \$40-50. Jaguar rare, expensive. /

11 April 1973. Briefly visited Gorgas mem. Lab., then Smithsonian office. Went to Corozal, Environmental Health Div., to see Charles Leaver; out, but saw collection snakes, insects, other preserved animals, \$7000 freeze dryer. All thought ocelots in C.Z. but nothing specific. Also in Corozal, to Veterinary Public Health office, where talked w. Nathan ^{DVM} Isale & his Chief, Col. —. Latter told of ranch of ^{P.} Harry Daniel, Animal Quarantine Station, Mendi, C.Z. Over 10 yrs. had held 10-13 jaguars there, 9 on his 10 000 a. ranch. Also one ^{last yr.} puma. ⁽²⁾ Some black jaguar taken. Ranch along N. side of E. ridge, off of Colon - Maria Chiquita road, turning to E. a little S. of Rio Vieja bridge. The Col. had lived in ^{that} area several years. Hunter on ranch, "Felix," should leave ranch. Recent black jaguar on Tagarapohu ranch, adjacent to Daniel, about 1 wk. ago. / Pedro Myriel area, puma taken recently. One seen Madden Forest Nov - Dec. 1972 (V. Gale). About 8 yrs. ago, dead puma along pipe line road. / Recently 2 ocelots killed by hunter on Pacific side, W. of canal. Also army officer, Zaugg, said saw ocelot on road there, in Imperial area, at night - he did not spread report as feared ^{hunter} reactions would take. Hunting years around in C.Z., some by Panamanians; I heard of clubs in zone. / The Col. (Vet.) said much logging roads in ^(Barro Colorado area) Darien - 3 ^{companion} Tractor Trails. / Isale says hunter from road

Journal

11 April 1973Caval Zone

going off to V. from near El Llo Llano, Bayamo area. / Isale said that several ocelots live at Ft. Sherman zoo (Capt. Lallini in charge). There is small zoo at Summit Gardens w. ocelots, mangay.

12 April 1973

Took 0700 boat to Barro Colorado Island. Talked w. manager, Nick Smythe, others. Smythe said previous ocelots there based on ^{occasional} tracks. He has taken about 3000 photos on BCI with automatic cameras but recorded no predators. Mostly agouti, pora, *Proechimys*. He thinks about 4 agouti/pora. Agouti pair territorial; about 2 1/2 ha. per pair. / I discussed problems of automatic photography w. Smythe. / He also had dams & measuring eqpt. set up to measure water flow from 25 ft. water shed in Lutz Trail area. / Essentially no trees in flower. Many dry leaves on forest floor & trails. We walked via Barbours Trail to Van Tye Big tree & back. Later to Tower, AVA 12, back to tower over Zetels, & back. Saw 2 agouti, 2 trogons, a quail, & a few small birds - also saw howlers several times & heard them too. Saw no squirrels, sloths, antelopes. Saw no leaf-cutter ants. I think area of palms has increased over last 15 years. I expected forest to be more free of small stems at eye level; but opening little if any, perhaps even less open in AVA 10-12 area. Saw no tayra - Nick says now rare - but 2 coati (Nick says too many near lab; come to garbage area). / Mrs. Cuen (sp.?) had jaguarundi litter (said to have paid \$100 for it) & ocelot litter on island. / Bodin in Panama, "Paca" dinner at Adela Honey apartment. ^{Dr.} Robins (spell?), staff member, said many spider monkeys & other animals for sale at Darien Compound, Chepo, by dealer Armstrong. / Paper

Mr. David F. Towar A.
Rec. Nat. Power.
Ar. & Sp.

April
12 August 1973.

Journal

Panama, P.R.

said the black jaguar had killed 10 cattle, taken April 5.

April
13 August 1973. Went to Isager M.L. Talked w. Gary (Howard?), Berlin

Baker student, who has been working on marmosets in Bolman area of C.Z.

for a few months. He said has seen no evidence sats except for a wet footprint near stream, possible jaguarundi. His ^{field} assistant, George Barrett J. (?), said he had seen a few ocelots & jaguars near Almerante, Bocas del

Toro. / Mendez said landowners there going to banana, and grazing. He thought San Blas landowners good for ocelots. Area of burning mainly on Pacific slope, from mid Panama to D.C. Rica. Atlantic and E. Panama more humid. / Mendez accompanied me to office of Ricardo Rotundo,

opposite El Panama Hotel. Tower about 30, energetic, recently ^{back} from Africa. He said there is no control on hunting or export, except for official prohibition of some species, including no cats. Said no parks except C. Campana. Area near Colombian border has official protection

for watershed protection mainly. He was aware problems fire & of jaguar depredation on livestock. He thought recent Washington conference would

have good conservation effect. He agreed probably much control band in wildlife products to Colombia & was interested in Venezuelan Chigire program of management. He was especially interested in getting funds for Panamanians to work on wildlife projects.

Returned to San Francisco and Berkeley.

Koford, C. B.

1977

catalog

#4600 - 4610

Journal

Mexico

Guatemala

Specimen Catalog.
(Guatemala)

22 April 4 Km ENE Chilasco, Baja Verapaz, Guatemala. 6000 ft.

4600 Teid? lizard; brown, wide head. Abronia aurita (Coll. E. J. Koford)
of postorbital trunk
Bottom wood on slope in cutaneous cloud forest. At Finca San Jorge. Daytime.

4601 Small snake, yellow venter. Rhadinia hopsteadae
Edge of forest road in cutaneous cloud forest.

4602 Shrike. Scincella incertum (2 eggs 11x6 mm.)
Under rocks at edge forest road; cutaneous cloud forest.

4603 Shrike; as 4602 but small. Scincella incertum

4604 Small frog Eleutherodactylus bocourti Near stream, edge cloud forest.

4605 Small frog, E. bocourti " " " " "

29 April

4606 Sceloporus tenebrosus (Coll. E. J. Koford)
Bushy, blackberry, in cleared cloud forest area.

4607 Gerrhonotus? Teid lizard. Batrachoseps moveleti (coll. E. J. Koford)
Dark brown. Fern by stream, cleared land. Blackberry bushes.

4608 Nyla? Eleutherodactylus bocourti (coll. E. J. K. from F. alongo)
Small frog, 3-V 27.

30 April Anolis cobanensis (Coll. E. J. Koford)
4609 Anolis

4610 2 Km W Chilasco, Baja Verapaz, Guatemala. 5500' hr. stream.
Small snake Masticodytes melanolamus laevis (coll. E. J. Koford). Oak forest.

ACC'n # = 11069

MVZ # = 144529 - 144540

1841

1841

1841

1841

1841

C.B. Koford
1977

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Edge of forest road in eastern cloud forest.

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Small frogs 3-V 27.

30 April Anolis cobanensis

4609 Anolis (Coll. E. J. Koford)

4610 2 Km W Chilasco, Baja Verapaz, Guatemala. 5500 ft. Masticodytes melanotomus laevis (Coll. E. J. Koford). Old forest. hr. stream.

ACC'n # = 11069

MVZ # = 144529 - 144540

C Koford
1977

Journal (Guatemala trip)

3 April 1977

Berkeley to Shenandoah, S. Luis O. Co.

With Erik K. & Julie Pifford, drove in '66 Chev pickup via San Jose to Shenandoah, 255 mi. Observed partial lunar eclipse. Saw only one Dipodomys on road in evening. Low rainfall year. Stayed in "my" shack.

4 April 1977. Breakfast & talk w. Jan McM. & May, mostly about the proposed 1000 poisoning on Hunter Lygett & recent public meeting about it.

Then via Bakersfield & again thru Banning. Snow stop near Isabel & San Bernardino mts. Snow over cities. E. to fork Joshua Tree N.M. where visited Cottonwood Springs area. On post Desert Center & camped w. Charles ^{note} Charles.

5 April 1977. On via Indio, Blythe, to Tucson, arriving 2 p.m. 1000 mi.

from Berkeley. Visited Ariz. Barry Barry desert museum. Stayed w. friend Carole Ragel, now working w. Mohr - U.S. program of museum. Tucson, Ariz.

6 April 1977. Shopped in Tucson. Conferred w. Dr. John Hendrickson & with Amadio Rea, bird man w. culture interests. Met Ted Parlan of L.S.U., who had worked in N. Perm. Some said that Paul Schwartz had reported Kutter in Veracruz - Veracruz near Caracas. (Steve Burzell & Terry Johnson (Colombia work in Santa Marta mts.) did not come.)

TO MEXICO

7 April. Departed 0700 via Greyhound bus for Nogales (\$3.35 ea.), at gpr

Nogales saw gpr. 2-3 Cathartes in air, up to 25/gpr. Departed 1100

235 p each - exchange 21 p / \$1
on old TVS bus, crowded & hot. 275 km. to Hermosillo over sparse brush dry lands. Departed 11 a.m.

TO Sinaloa, MEXICO

8 April. Arrived Mazatlan 0500. Breakfast on beach. Many Fregata, gulls, terns, pelicans. Viewed stores, markets. Departed 2130 by Pacific bus for Guadalupe (105 each). Walked ^{big equine} to Merina on road ^{or} thru hills side. Saw no evidence spotted cat hunting.

9 April arrived Guadalupe about 0700. Rented at Hotel (125 p. for me w. 3 beds; Taxista). Viewed markets, playas, monasteries. Saw man

wild animal skins for sale. Departed 2300 via Ambar de Merina for Mexico, 114 p. each. (Live birds in market included blue grasshopper, green gape, black headed grasshopper, big toucan, tropical bird.)

Ted Parker
LSU

Nazareth area - Peru - bds.

A. Rea

interest: Hawaiian crabs -
Describe turkey cultures in Ariz.
Bone identification
some work Belize.

Karella Colorado - A-S museum -
office in Nogales. Met her 4/7

Journal

10 April 1977 Sunday.MEXICO D.F.

Arrived 0600. Airport - like bus terminal. Electric bus to Chapultepec park. Visited Anthropology Museum. Mexican culture sculpture of owl, snake, bloody, most impressive to me. To Hotel Luchit Catalina (3 beds, 210 p. total) near Zócalo. To Bellas Artes + Alameda. Ride to frontón.

11 April. More tourist gazing around Zócalo + Alameda. To A.D.O. station ^{up thru pier to summit, then down. Windy roads.} (N. of sta. Buenavista) and took 1630 bus for Oaxaca, 115 p. each; arrived

12 April at 0200. Small but good terminal. More tourists + houses ^{modern} than on last visit here with Sue K. about 1971, + prices generally higher. (En route stopped at small towns. Matamoros was impressive, clean, w. a fair in progress - ferris wheel, merryground.) Visited market, rich in baskets, pottery. Visited store El Calullo Mixteco, a block S. of SW corner of Zócalo; in 1971 I saw about 50 owl skins there. Still many tanned skins ^{including} ~~including~~ 15 magpies, tanned, complete over selling at 100 pesos (< \$5). Others stuffed. Few owl - perhaps 3. Also tanned skins of other, deer, puma, puma (robe of many skins). Talked w. Joaquin Izaguirre, son of original owner. He said cats from mountains, scarce now; taken w. traps. / Market rich in string + straw hammocks, + straw bags. Much fruit, nice vegetables. Visited Casa ^{Brena} ~~Brena~~, where bedspreads + other cloth articles made on large hand looms, dyed in open outdoor pots. D. Gray squirrels in trees in Zócalo. A medicine - man stall had skins of tauraco, cacajao. Brodiaea prominent everywhere - some carry nest materials. Kulture rare in town. Wooded mountain to E. Departed 1 p.m. for Tehuantepec (51 p. each). Thru dry rolling country w. noyuey fields the main greenery. Then descended a long canyon w. eroded talutaries, veg. of open dry brush, columnar cactus, prickly pear, ocotillo. umbrella - candel tree (same w. yellow flowers) or silk-cotton tree (Bambusa?). Potholes. Cattle trails everywhere. To broad wash at bottom

cats

photo in
shop.

Journal

12 April 1977

Edo. Oaxaca, Mexico

w. running water, 5 m. wide *Gambusia* trees. Occas. 2-3 *Cathartes* or ravens. Up & down road. Near river, belt of green trees, palms, corn, mango trees. Small *Tillandsia* on rocks & trees. Broad valley w. maize fields. (Mts. w. clouds low to E.). One higher zone w. small yellow ^{maple w. decid. oaks} ^(a few) pines, very open stand. Smoky fire on mountain. Nets of stock trails. Near Tehuantepec, brush thicker and "chaco"-like, much probably mesquite. Bus went to Salina Cruz, larger & more populated than Tehuantepec. Passed a large lake to N. Saw no *Coragyps* (tho thick in Tehuantepec when I was there w. Pichelka & Reimer in 1950). In T., tearing down old market building. Hotel Doraji closed & abandoned. Town seems to have deteriorated since 1971. Stayed at Hotel Oasis (ceiling fan; 130 p. for 3 in room w. bath).
to Teotla Gut.

13 April Market. a woman hatched *iguana* star w. *iguana* eggs. Two had 10± *iguana* alive, tied; each photoed them. No birds seen market & few large fish (jacks), but many dried shrimp & pompano-like shiny flat fish (sandy beach types?). Departed 1315 by bus for Teotla (59 p. each), as good as any bus we rode to N. Stop at Juchitan, a town junction. Then on through flat country, w. dry brush, maple, often thick - scrub country? Some mesquite, agave, doves. Tepanatepec stop, end of flat; mango orchard. Then wound up mts. thru dry deciduous forest. Several fires, much smoke. Trees to 10 m. tall. Some *Acropora*, *Ceciba*, & damaged slopes. Upper levels, open pines to 12" diam. Section of grassland, oaks, rocky slopes. Pine & *Ceciba* alongside each other. Network of stock trails. Upper level rolling w. some fenced & ploughed pastures. Spring brush & low trees, small bromeliads. Clouds over mts. to N. Cultivated or grass pasture fenced fields at Tenorio. Cintalapa town. Then more dry pastures. Ascended again, deciduous trees, mostly leafless. *Gambusia*. Thick cover at Tenorio. Then level, rolling,

Journal

13 April 1977

Tuxtla Gutierrez, Chiapas, Mexico

again. Town of Ocosingo, w. no large buildings. More rolling country, fields, thickets, bromeliads. A boy said rain in June. Tuxtla Gz. - more buildings than in 71. Many new cars. Seemed prosperous, bustling. To Hotel San Carlos on main plaza. The cylindrical ficus trees in park now larger. Israchlen in them. In early evening, 10+ large bats (*Artibeus*?) swooped around central lights atop 30' pole in plaza. Some insects flying there. Calm, warm night.

14 April 1977. To I.H.N. gov. a new building ^{building} of Inst. Recursos Nat., headed by Dr. W. Hartman C., orchid specialist. Talked w. him. He said main problems were that Mexicans needed food, lumber. Too many people. Only hope for wildlife was reserves. He had plans for 200,000 Ha. reserve in Selva Lacandona, SW of Bonampak, where few inhabitants and not yet logged. Fairly flat wet zone. Later talked w. M. Alvarez del Toro, who said that area suitable but plans only on paper & no funds for guards. "Vigilancia" poor in all Mexico. Said still jaguars in S. Lacandona, on S. coast, & Sierra Madre of Chiapas. One seen at a near Tahiti recently. Fox somewhat expanded during last 5 years. He was proud of new acquisition of 1 *Oreophagus* ♂ from S. Madre. Pair *oculata* in one large indoor; no reproduction. One jaguar only. But several quises (very active in daylight & said to tame readily), tayras, 2 jaguandis, agoutis, mayas (shed antlers irregularly), tuxis, paca-avis (1 white legged). Renewed acquaintance. Both daughters worked at gov. Habitat group displays in large cases. A. del T. recently published mammals of Chiapas (+ gave me copy). (Hat, ruggo, & biting flies in Tuxtla. 35 per hour) Reported 1345 for Comitán via bus. Route past gov. & markets. Crush-tomato-like fruit on trees, now ripening. Wide flood plain. At Fort river from Sumidero area. Living fenceposts. Road wound up through low deciduous forest to pine zone. Greener on increased elevation. Broadleaved trees to 50' tall. Much thick vines under

Journal

14 April 1977.

To Comitán Chiapas, Mexico

growth. Cultivated $\frac{1}{4}$ A. plate. Smoke from fires in valley & hills. Small cliffs. Pines to 70' + mixed w. deciduous oaks. Descended some to flatter area of San Cristóbal de las Casas. New bus station & evidently increased tourism. Continued on thru pines, to 70', 14" diam. b.h. Some goats. Mixed pines & large oaks. Town - Tapachula? Then you come to 2' tall. In Cultivated plate. Up to pine & oaks again. Large bromeliads in oaks. P. Bush only on slope to Comitán, 5 p.m. Quiet town w. friendly people, not apparently curious about gringos & backpackers. No bus s. until tomorrow. So biked N. out of town & camped at edge of meadow field. Overcast, & about dark started to rain heavily. Packed tent hurriedly but did not shed water so got soaked. Retreated to a shack w. partial roof. Rain, thunder, lightning, stopped about 10 p.m.

To Panajachel, ^{5061a} Gt.

15 April 1977. ~~For~~ ~~from~~ saw centurus woodpecker, mocking bird, a few black vultures. Erik caught a green racer; released; & saw quail. Dry brush & rough stone walls. Took 10 a.m. bus to border (18 p. ca). Thru deciduous forest, descending. Checked Mexican tourist cds. Got Guatemala visa for \$2.00. Pd. 50¢ for admsn inspection (very sunny). Bus to Huehuetenango, 159, Solalá 4.00. Down curving ^{steep} roads canyons largely denuded of trees; some fir. Huehuetenango stop, then on to Encuentro (Solalá jct.). Small bus (50¢) down to Solalá (active market, many campesinos) & Panajachel (more gringos than natives, a dirty run down settlement. Found Long Street at home (red gate, 29¢5 on it; Dr. "Mata-culebra") and talked w. him a couple of hours. He suggested going to El Pando, about 80 km ENE of Guatem. city, & getting info on roads from loggers who work NE of there. He also gave me a letter to Dr. Eugenio Schwendener, Ferretia "El Globo" in Gt., who may have a finca in mts. E. of San Jerónimo. Near the "cumbre" N. of San Jerónimo there was a side road E. to Chilac, about 1800 m., which might be useful. Street thought entry from north side would be difficult. / We stayed in town at Maya Grande,

Alcalde de Salama
Virgilio Alvarado
Salamanca - Col. Pinar.

Ing. Mario Darry Rivera
Director Escuela de Biología
Univ. de San Carlos de Guat.
15 Calle "A" A-40 Zona 10
Guat., Ciudad
Tel 680383 (casa)

INAFOR

La Aurora Ph., 2.13

Amor. Amigos del Bosque -
9 Calle 2-1, 2.1
Sr. Villiger Ridar (sp?)

Journal

15 April 1977

Panajachel, Guatemala

\$3 each. OK but many flies.

16 April 1977. Visited Stuart again. Took 12:30 second class bus for Quetzaltenango.

Arrived 5 p.m. at market area. Walked to Spring Hotel (13 calle 9 av. 2.1); room for 3 = \$9. Tall airy room w. windows to morning sun. / In night, series of 10± explosions to E. & big fire. The customs house burned up. / Hotel man said first ^{here} rain about 12 days ago.

April

17th Sunday. Sightseeing & shopping in Quetzaltenango city.

18 April 1977. Monday. Visited Schwendenman at El Estero finca, av. 7. He had friends in finca near Los Llanos (Agrupación de Marroquines), said livestock some in area, colorful birds. He told me of Gerardo Hertrich, who had Los Llanos store at 8th av. 8th calle zone 1. (Tried to see him - out), who had finca near Chilam. / Shopped. Noted some Blunt stores & cartridges here. U.S. canned goods very expensive. Saw no evidence of new wildlife pellets for commerce. / Visited Eng. Mario Dary at Bolsonal Garden, av. Marshall Cruz on Avenida Politécnica (of army). He remembered me from 1972. Offered to update letters of introduction. Said an American (Jensen?) has working on water in Lake Izabal. Forests much reduced in Paten. S. de las M., much cutting of pine on S. side. Info on logging from INAPOR or Amigos del Bosque. He told me of a quartzal-reserve finca at Quisá near Parulha (Km 15 1/2, wood house w. tile roof & tile roofed gate), belonging to Bernardo Llanos, where we might stay; caretaker name "Genaro." He said univ. has boats on L. Izabal & can go to Carlempa, El Cetro (or El Chapin). M. would like students to get field training. / He had plans for a reserve S. of Parulha, w. several "calabazas" (c. 110A) offshoot donated by Bolsonal municipality, & mines active, emphasizing quartzal protection & studies. Mario very good natured & seemed cooperative. / We went to bus terminal & found too late for last bus to Salamá area. Hard rain for 1/2 hr. Stayed at cheap hotel (\$2.50 ea.).

19 Apr. 1977. Tues. At Plaza del Barrio, 19th st. & 9th ave., took 0600 bus for El Rancho (\$1. each). Then eroded hills, sparse grass, rocky road,

Journal

19 April 1977

Guatemala

dry open mixed brush, rare cultivation. Agua Caliente river, bridge out - palms + mango trees in flood plain. Occas. silk-cotton tree, calabash, mango (green fruit). Later some columnar cactus, dry spring brush, gumbo limbo trees; El Progreso. Occasional small orchard or cane field. forestation. Crossed muddy Motagua river at El Barro jet, many new food stalls, thatched; coconuts, gasoline, watermelon. We changed to bus to Salamá, 66 km. On way, small sawmills, cactus fences. Branch to Mozón about 1800'. Mesquite, irregular hills, dry + rocky, open brush. Green valley to E (Mozón?). Road cuts thru gray serpentine. Occas. Cecropia or giant deciduous. River started about 2500', shortly before Los Llanos (gas, hospedaje). River to 50'; (E 10") small drain, small cover (= P. oxide?). Cecropia + oak mixed w. pines. More humid upward. Steep slopes; occas. small house. No ^{overt} clearing of pines. Cerro Santo Vista Hermosa. 3500'. Small finca above caña field. Oak to 40' tall. Rocky soil. Depósito + store 3700'. Scattered small houses on ridges. Some bare slopes. Occas. burned swath. Branchade in pines. Electric substation + 100'. Cumbre de Santa Clara (5000') (fork to Salamá) w. truck + Inafor station, food stall. Brown sandstone. Fire in hills above. Oak to 80'. Long lichens hanging on trees. (Ch. Left bus + hiked up road (34 km. to Puerbalba), 1030. Thick brush w. dry large branches. Patchy forest trees. Occas. Liquidambar tree, in green leaf. Muggy air. 1/2 cloudy. Occas. clear fast stream from mts. Took a bus at 1130. Santa Barbara - clearing w. 50' small houses, 5000'. Store. More small creeks, long "spanish moss" on trees, bromeliads. Open pine forest on slopes. Las Motanizas - 10' wide stream. Gravel road to E. (to Chilón?). "Comedor Calanua". Finca Plan del Duero (steep grassland). "Niño Perdido"; (2 Americans said to have 2 "caballerías" of forest here; religious ppl.) Caña. Cattle. Pine & oak. Occas. large T trees. Cloud forest about 300' elev. above road, cut over below. Sawmill. Occas. houses (La Unión?). Quirigua house. Then taller forest near road. Tree ferns. Caña fields on far slopes. Some bare slopes. Smoke. Town of Puerbalba - small + sleepy. Electric

K
200-11-

cf photo

Journal

19 April 1977.

Baja Verapaz, Guatemala

station near (INDE - aldea para Progreso). / Walked back toward Quirri. A road to E. among finies from Punalhá - mostly for walking? Good blacktop surface - said built 5 years ago - no road before, so recently opened. Hitched ride to Quirri & talked w. Benito. He let us use Lamm's house. In finie w. mixture broadleaves & Liquidambar. He said quetzal flew near house most mornings. We saw swallow tailed kite over river on point. Steller jays conspicuous. Benito said a woman from San Francisco, Anna Olla (sp.?), had stayed there 6 mos. last yr. & studied orchids. He said tigrillo & leonillo & pirote & tepicimintle present, but no parrots. We heard chachalaca call. / Took walk in woods. Saw black cecropia, flickers, *Merula* flycatcher, big robins, bluebirds, a *Cyanocitta*? jay (seems jay w. black head), grackles, yellow bellied sapsucker *Empidonax*, hummingbirds. / Saw gr. 15+ cattle (?) goats flying in evening. Fire-flies appeared in night.

20 April 1977.

Mr. Punalhá, B.V. Grotom.

Morning walk. Saw a *Sciurus* in broadleaved tree. Jays prominent. Visited Plantation "Santa Teresa" near km 155, where Florinda's lived now. Paul Garrity & Jimmy (14 yrs?), Mrs. G. away today. Here 5 years. Said border monkeys in forest. Often saw quetzal near house. Forest pushed back about 1/2 mile during last 5 yrs., on municipality land. Garrity thought Guatemalan (INAFOR) sought to kill everything, & few were treacherous. ^(U. Texas) John Campbell, a scientist from L.S. city, had visited, set traps, netted bats, caught bees (including salamanders), and taught Jimmy much. J. had formalin specimens of frogs, lizards, snakes, & few salamanders. Live *Anolis* in house & live *Bothrops* in jar cage. Said saw *B. godmani* was fairly common near Punalhá. Paul said a waterfall about halfway to Punalhá was called "curve of the quetzal". A Cal. Catracha had Santa Rosa ranch S. of Punalhá, on old road (S. & 300 m E. of Chirren Sta.).

K 100 8
frontOreocetes
CyanotheceOreocetes
Cyanothece
Turdus
Sialia
Myiophobus
Spinus?

Geog. Inst, Guate

Sr. Lee ?

Niño Perdido

E. side

2 Amer. - forest patch.

church gp. ?

Vara = 8 ~~ft~~ m. = 33"

10 X 10 v. = manzana

64 manzanas = 1 caballería (110 A)

Journal

20 April 1977.

Nr Puralhá, Bja Verapaz, Guatemala

A Sr. Barrientos of Puralhá has undeveloped lands near there. A place called Panamiginto, low area, about 10 mi. SE of Puralhá; reach via horse-ride. Said puma reported near Rio Perdido recently. Local people kill everything. A boy (18 yrs?) named Portales, in aldeas about 1 1/2 mi. S., knows country & would be good guide. A man named Dix (sp.?), Amer. Univ. in Guatemala? or Del Valle? after visits & campers nr. Puralhá. / La Unión, Sr. Amilís Rayer, former alcalde and, very sensible & reliable man, about 40 yrs. ^{Paul} ~~Samuel~~ about 50 yrs. invited us to visit anytime. / We left Quirigua about 1300+ took bus to San Julian (store at ^{jit.} ~~from~~ Beyad Puralhá, much more clearing & grassland, cattle. Pinar gone. Patched trees. / Took bus to Talamán (\$1.30 ea.). Down canyon between steep slopes by stream; thick brush. Crop fields. Beans, corn, bananas. At Tamabá, loaded many ^{Kekchi} Indian women w. bracelets on hands, silver blouses, bar feet, flat barro plates. Rocky streambed; river 5 m. wide. Trees large. Pinar on opposite (S. aspect) slope down to 2500'. Large clearings on steep slopes. Tecunú similar, 1800', in narrow valley. Below, gradually widened to 4 or 1/2 mile bottom. Grassland, palms, lone caoba trees. "Papalhá" antiquities station, school for mayordomos; grasslands, cattle, forestry, soil buildings; sign said 430 ft. elev. Citrus parvifolia. Cattle agates. Living fence. Smoky air. Dusty road. Narrow wooden bridges. Valley broader, 1 mi. out. / Town of La Unión larger, w. busy market. Calabash trees. Many fields of dried corn stalks. Forest patches atop limestone hills. Hot, muggy, dusty. Arrived Talamán 6 p.m. Mangoes, watermelon - little other fruit. A small hotel (1.25) but we camped at ^{rocer} ~~rocer~~ field. One public washing pond on small stream. Main river solid with hyacinth. Brodiaea prominent. Heard chachalaca calling. Road to Pueblo Viejo but no higher sanctifying logs or products seen; ^{apparently} ~~presumably~~ no roads around far up on this side of S. de San M. Cluffy peaks of foothill range visible, but air too thick to see vegetation.

Journals

Rio Polochic,
B. Verapaz, Guatemala

20 April 1977

there. Most speak in Indian dialects. Some mosquitoes at night & many dogs.

EJ pix to S.

21 April 1977. Smoky still in morning. Overcast night but no rain. Could have continued to El Estero & taken boat to Maricao, but did not - returned on bus toward Cobán. Limestone hillsides & some cliffs, near road. Rain to 10 m.

wide & fairly clear. La Tinta market crowded, lively. Cicle saw big Rail-
erina type leguins in yard here; met woman ^{formerly of} from San Francisco, Calif.

EJ photo-
meter

Papalho, greener, & stream clearer, faster. Then valley narrowed toward Tzucru, about 1700'. About 3100', hanging nests (Oreopeltis?). Pine on

S. aspect slope, fairly pure stand. San Julian, 4700'. Changed bus & went by Quirin (5200') to Conde Calaveras (meal), then foot of Chileno road at 4000'. Hiked up thru small pine. Then got ride in Datsun pickup

from Heriberto ^{Angeles} Angeles, who had finca about 4 km E. of Chileno. He invited us to stay there, Finca "San Jorge," about 6200' at edge of mont

forest. Mostly thick brush near Chileno, w. occasionally a few forest trees. A few houses & tiny store. Large soccer field & many pigs, turkeys, dogs. Heriberto showed us the dam & irrigation canal near Santa Cruz. He

said no fish & would like to introduce them. He said a road went about 15 km E. & up to pine zone of Sierra de las M.; we saw no pine logs or expt. here, however. Planted cypress trees near canal. Many Liquidambar

trees. Abundant blackberries (moras). He planned to save about 500 acres of primitive forest at his finca. He also worked in Huehuetenango in Quetzaltenango.

Forest. He had hundreds of seedlings of pine, avocado & other plants to transplant in his area. Offered facilities & loaned us small house w. tiled roof. Tall broadleafed forest 100 m away, partly cut, & several km. away. One road penetrated 5 km. further. In evening I heard sharp calls of a large owl close by; rather like mouse code, & apparent call of smaller (screak?) owl. Heriberto said never before freezing in Jan-Feb. here.

Journal

22 April 1977

No. Chilasco, B. Verapaz, Guatemala

about 7 a.m., left on walk w. guide Vidal. Up trail to SE to current forest. Saw
 2 Aulacorhynchus toucan (pico de naja) at 100'. Saw red + green trogon. Band of 15+ Columba
 in partly cut area. Myiophobus flycatcher. Red-tailed hawk. ^{Phalaenoptilus} Big black + white woodpecker
 w. red crest & banded breast; many chips (possibly 2). a 30' dead tree w. ^{many holes} much evidence
 made by feeding birds & some larger ragged deep holes; Vidal said quetzal had nested there,
 on ridge in forest among broadleaf trees, saw quercus in tree - mostly black. Searched
 for Salicoglossa - no success - tho Vidal knew them, said found on trunk & under
 bark. Found yellow-brown frog under rotting branch (brown iris, black mask extending
 posterior to eye, 2 bands across forehead; all yellow; in formid. Vidal said large toucan
 occurred - also leonillo, tigrillo (small-like house cat), tepicucillo, leon (one
 reported a week ago). Men cutting latex logs. Another walk in afternoon, on bulldozed
 trail to N. Saw pair trogon (maybe trogon?) near dead tree; chips w. lifting tail as if
 excited. A brown hawk, not redtail, atop stump in clearing. ^{small.} ^{saw} glossoceryle perched. Searched
 for salamanders; took 2 shiners, an orange alligator lizard, a yellow-brown frog
 (speckles on lower jaw, short, anterior thigh; 4 bands across thigh; yellow line at edge of
 (snout at nose)
 dorso-lateral ridge, yellowish eyelids). Partly opened forest. Rain came about 4 p.m. & had
 rain for an hour or two. Collected 3 beetles in formid. Saw tracks of mapache
 (weasel) in mud; another track possibly tayra. Vidal helped search for salamanders, but
 none found. Rain on + off into night. Heard small owl in night - series of 5
 notes. Rain stopped in night but remained overcast.

23 April 1977. Sat. Creek rose during night & washed away over 3000 seedling ferns &

other trees in plastic racks on bank. / Short walk up road; ^{brown} 1 1/2' snake w. yellow venters
 under board. More search but no salamanders found, tho all down them & said
 sometimes in woodpile on open ground. / We helped retrieve seedlings. Trogon cell
 (melicurus) frequent near houses. Rashed out. to Herbert in Francisco Alonso, who
 was friendly. Centinel has one eye, but pleasant. / Road sloppy. Hiked to jet. below
 Chilasco in about 1 hr (4 km?). Saw Cyanocitta in shrubs. Road to Chilasco good,

spec.

Kotard
pilot
manrare
spec. →
spec.

spec.

Journal

23 April 1977

Nr. Chilasco, B. Verapaz, Guatemala

w. gravel. Walked down thru small pines. Saw hogan calling in pines, about 5500'.
 after 3 hr walk, truck picked us up & took us to La Cumbre. Took a bus down to
 W. to Salama. Descend thru almost pure stand 30' pines w. low brush under,
 few oaks. A pretty area on either here (again). Salama a sleepy small town w. few
 stores & facilities. Ceiba trees in Chapala. A "rodeo" in progress - bull escaped
 & ran down paved road; cowboys chased & 2 horses slipped & fell on the
 pavement. / Departed on 5 pm bus for Guatemala via El Cumbre. E. & N. slopes near
Los Hornos had fair pine-oak mixture on slopes & might be suitable
 for study. Shortly below, 2500', pines ended - mostly sparse mesquite
 bushes down to 1100'; columnar & cholla cactus below 1500' high
 broadleaved trees near 2 fairly clean streams. Good views over Marazán
 to crest of S. de las Merced, but too smoky for obs. of vegetation. In
Guatemala, stayed at Chalet Suiza, 2500' ea.

24 April 1977. Sunday. I took plane back to San Francisco. Erik
 & Julie stayed for trip to Lake Izabal May 3, after a few more days at
 Finca San Jorge.

at 1/2 2/12

Koford, C. B.

1978

catalog

#4611 - #4707

Catalogue

El Estor, Dpt. Izabal, Guatemala. El. 100.' [Las Dantas]

6 Feb. 1978

4611

♀ lenth. C-RB. Artibeus lituratus. 93-0-20-26, 0 gms.
In formalin. Forearm 67. ~~Netted edge garden on hill~~ ^{under next to hill}, 8-9 p.m. In formalin.

7 February

4612 ♂ t. 4

Artibeus phaeotis

50

60-0-11-16, Forearm 38.

SK + skull

10+ gms. Net in morning; edge garden on hill. (DNA tiss. ETOH, C. Siblex)

Philander opossum

4613 ♀ inactive.

510-267-40-36.

Live trap by marshy pond. (DNA tiss. for ETOH & C.S.)

19 Feb. 1978

4614 ♀

1st. foll. < 1 mm.

Myotis grisceus

no fat

10 gms. White iris.

Netted by Cecropia at edge garden, midday. 2 yellowish wing bars.
Yellow eye ring & lores.
[Rancho Mirador; d.c. B. Lemus; Km 157]

26 Feb. 5 Km ESE Pura lha, Dpt. Baja Verapaz, Guate. 1600 m.

4615 ♀

lact; 3 sc. R 1 L.

Peromyscus - stylomys

264-136-25-29, 60 gms.

Under ferns atop rock, 6' above stream bed [on Banco Güisayote house].

4616 ♂

t. 3

SK 1/3 clear. Empidonax flavescens salvinii
~~Empidonax? flaviventris?~~ no fat.

Netted early morning near stream in cut over area.

27 February

4617 ♂

t. 11x5, turgid; c. epid. anl.

name; juv.?

218-111-14-18, 40 gm.

Mouth hole at base tree near rocky stream.

28 Feb. 1978. 5 Km NE Chilasco, Baja Verapaz, Guatemala. 1900 m.

4618 ♂

t. 5x3

Reithrodontomys

150-90-18-15. SK all broken.

Bush & broken at fence near house.

4619 ♀

3 emb., ER 20.

Rat.

tail unicolor

204-156-32-2 f.

Under foot bridge and; grass & bushes. (another ♂ 83 ESK in hole under tree
bushes, edge forest.)

1 March

4620 ♂

t. 5x3

internal flaccid

Perognathus

300-160-36-18.

(coll. EJK).

Mousetrap, under log, humid opened cloud forest slope.

F

To Univ. San C.

wilsonia EJK

Hummer EJK

Artibeus EJK³⁹

Catharus 4625ck

T. grayi 81EJK

Myiodynastes unicolor - 2 March '78

Catalogue

2 March 1978. 5 Km NE Chilasco, Dpt. Baja Verapaz, Guatemala. 1400m.

4621 ♀ Emb. C-R 1mm. Rat-like 4619
2 in RH

264-131-30-22

4622 ♀ lg. w. < l. Catharus frontzii

no fat; nitted, bushy shaded, ^{front} slope.

3 March.

4623 ♀ reprod. imm.

Heberomy's
Peromyscus

(coll. ESK) (see his notes)

297-162-35-20

SK only

4624 ♀ v. imp. -

Rat-like 4619
Peromyscus?

No skin

4624 ♀ reprod. imm.

270-144-32-23

Mouth & lower mandible yellow.

4625 ♂ t. 1mm.

Donated
to

U.S. San Carlos
Guat.

Furnicarius?

Catharus frontzii

no fat. Brush slope, forest.

4 3 March

Formol

4626 ♂ t. tiny

Bet

Sturnira?

No self f.; no stripes (1 hr. old)

Forearm 42. / organs ETOH

Formol

4627 ♂ t. tiny

Bet

Sturnira?

Same. Green bushes, slope

edge forest. / organs in

Formol

4628

small frog - S-R 21mm.

Partial hindleg; gold in.

Light brown, pale mid. stripe.

5 March 1978.

4629 ♂ t. 17 x 10 Rat-like 4619.
big c. epid.

adult. tail tip missing

268-129-32-23.

Nitted over road, edge open forest.

Formol

4630 ♂ t. tiny

Sturnira?

(Organs in ETOH, fresh.)

6 March 1978.

DNA

4631 ♂ t. 7 x 4

Bonaparte's

Lepidocolaptes affinis

no fat

4632 ♂ t. 4 x 3.

Ad.; blue gr. - ref. water - blue hill

Diglossa brunnei baritula

Both nitted on road thru open cloud forest slopes, on drizzly days.

Formol

4633

imm.

Peromyscus

back broken (coll. ESK).

239-122-33-18

Edge open cloud forest slope. 30mm west leg in check pouch (ground sloper?)

5 Km ESE Puralha, Dpt. Baja Verapaz,

7 March 1978, Guatemala. 1600m.

(organs. ETOH, fresh)

Formol

4634

♀ no emb.

Dendrocin

fm. 63

(org. - ETOH, fresh)

Formol

4635

♀ no emb.

Sturnira

forearm 46

(org. - ETOH, fresh)

Formol

4636

♀ C-R 7mm

to emb.

Sturnira

fm. 46

These 3

taken about 8 pm in net among second growth vegetation, 1/4 mi. SW of house.

E1 Estor

Flatsk

10 Feb. 1978

Piranga R. rubra

4637

♀

Halcyon fuscescens?

Flatsk

5 Feb 1978

4638

♂ t. 3.0

Myiarchus (bakeri)?

DNA blood

Discarded. - 3/4 - like 4619.

juv.

♂ 230-115 (tongue? -
38 mm out tail, in ROH).

juv.

♂ 250-132

5/mar. Disc.

juv

♀ 250-134
repro. inactive
v. imperf.

3/6 a.m.

Disc. juv. ♂ Peromyscus like 4619.
t.l. 205 t.103

E. Koford
1978

1978

Specimen Catalog
(Guatemala)

11 April 1978. 5 Km NE Chilasco, Dept. Baja Verapaz, Guatemala. 1900 m.

sk. + sk.

4639 ♂ t. 9x17 Sciurus

380-172-43-26, 280 gms.

12 April

sk. + ossif.

4640 ♂ t. 1 1/2 Diglossa baritula

body molting
mod. fat.

Coll. EJK

9.6 gms.

skull not ossif.

4641 ♀ o.n. enl.

body molting
slight fat.

Coll. EJK.

7.8 gms.

Edge road near brush on steep slope of cloud forest; mist net.

12 April

4642 5 Km. SW La Cumbre, Dpt. Baja Verapaz, Guatemala. 1200 m.

Formalin-
skinned
4642

Crotalus

on black paved road 3 a.m.

13 April 1978. 5 Km NE Chilasco

sk. + sk.

4643 ♂ t. 20x12. Peromyscus

Coll. E.J. Koford.

293-157-33-23 71 gms.

1-2 m. brush, secondary; under stumps. Organs in ETOH.

ad.

sk. 4644 ♂ t. 1 1/2 x 1

Contopus ? cinerus

12 gms, no fat.

Coll. Marsha Hunt. Rotted, roadside on slope, brush + open cloud forest.

[same species; released
14 April.]

→ 14 April 1978

Formol

4645 ♂ t. 10x5 Peromyscus

277-144-32-23, 70 gms.

Formol

4646 ♂ t. 10x5, CR 33. Desmodus rotundus

Coll. Marsha Hunt E.J. Koford

12 gms.

Formol

4647 ♀ 1 emb., CR 33. Desmodus "

Coll. E.J. Koford

Formol

4648 ♀ pg., CR 23. Peromyscus like 4645

74 gms.

Formol

4648 ♂ Onychomys ?

Coll. Marsha Hunt Bill Dishor

257-141-29-17, 42 gms

Mod. dense brush on hillside; opened rain forest. Base of tree.

Coll. E.J. Koford

Formol

4649 ♀ no emb. -
repro. undev. Heteromys

286-168-37-19

58 gms.

Formol

4650 ♂ juv. Peromyscus ?

34 gms.

Formol

4651 ♀ juv. "

33 gms.

Formol

4652 ♀ repro. inact. Heteromys
hummer

270-152-34-17,

56 gms.

4653 ♂ t. 1 1/2

No fat.

9 gms.

blood
D.V.A.

4654 ♀ sk. 1/2 clear
ov. not enl. swift

Mod. fat

12 gms.

Formol

4655 ♀ repro.
inact. / r. imp. Peromyscus

267-143-33-22, 53 gms.

Formol

4656 ♂

74 gms.

4/14-15

Juv. - Peromyscus

- brown spot chest.

DISC. ♂ 10 gms

♂ 46 gms

♀ 40 gms. - repro. to. inactive.

specimen Catalog

[Fca. San Jorge]

15 April 1978. 5 km NE Chilasco, Dpt. Baja Verapaz, Guat. 1900m

Formol 4657 ♀ Desmodus rotundus. Netted. 39 gms.Formol 4658 ♂ Peromyscus 266-138-30-22, 66 gms.ROH 4659 ♂ Sturnira Netted; slope opened forest. 29 gms.4660 ♀ Arenomys chionotus no fat 14 gms.
Lgt. ov. 1mm. sk. 9/10 inf.Formol 4661 ♂ Reithodontomys Coll. Marsha Haight 160-90-17-16, 12 gms.

Formol 4662 ♂ " Coll. Bill Disher 162-88-18-14, "

Formol 4663 ♀ no ambs. " 168-92-18-15, 12 gms.

4664 ♂ t. 11x6 skull 8/10 clear Atlapetes brunneinucha 42 gms.15 April 4664 ♀ egg in duct Myadestes cinereus no fat. 39 gms.16 April 4665 ♀ Lgt. ov. 1mm. Atlapetes gutturalis no fat 24 gms.

17 April 1978

4666 ♂ t. 12x9. Turdus grayi plebejus no fat; 80 gms.4667 ♀ Lgt. ov. 1mm. Arenomys chionotus no fat; 14 gms.Formol 4668 ♀ inactive repro. tr. Heteromys (Organs removed; in ind. intestine & stomach.) 309-173-36-19, 73 gms.

18 April 1978

Formol 4669 ♀ Sturnira?Formol 4670 ♂ Reithodontomys

19 [SE, San Antonio]

18 April 1978. 8 km. ESE Chilasco, Dpt. Baja Verapaz, Guatemala. 1900m.

Formol 4671 ♀ Reithodontomys 165-103-18-15, 8 gms.

Formol 4672 ♂ Heavy black under 6' bushes, 50' from stream in elm-bush zone.

ROH 4672 ♂ Reithodontomys 161-103-19-15,

Caught by hand at nest inside rotten log that lay in burned field.

20 April

blood DNA 4673 ♂ t. 8x4 Carpodacus vociferus (12 hrs dead) 42 g

discarded ♂ 4674 Another - " ♂ t. 8x5 - no tail 42 g.

in morning Above two in same net; grass near stream & bushes.

15 April. - Dusseldorf

Crepidula flavescens

♂ 11 gms. t. 7x4 mm.

♀ 10 gms. Lgt. av. 2 mm. diam.

♂ t. 1 mm. Wilsonia pusilla

17 April

Disc. Peromyscus - buffy chest.

♀ 40 gms. - repro. inactive; vulva unperf.

DNA sp. - no spec. -

♂ Peromyscus - unicolor tail, buff chest & sides, black around eyes, white feet; common kind here.

Specimen Catalogue

21 April 1978. [Quezaltenango], 4 km. SE of Pucallá, Dept. Baja Verapaz, Guatemala. 1700m.

Formal 4674 ♀ ♂ t. 6x3 *Peromyscus* 163-55-25-21, 35 gms. tail broken off

Formal 4675 ♀ repro. juv. " 218-117-25-19, 36 gms.

There 2 -

On ground in damp woods near lumber; one in rocks. Same as taken at Quirigua?

Formal 4676 ♂ t. 10+mm *Peromyscus* 140 282-140-31-23, 84 gms. buff-shed

Formal 4677 ♀ emb. C-R 18 141, 1 RH " *Peromyscus* 280-144-31-24, 78 gms. buff-shed

above 2 in dense undergrowth. a third (♂) in formal donated to M. Dary. t. 10mm 286-146-30-22, 76 gms.

Formal 4678 ♀ no emb. *Peromyscus* 228-120-29-20, 36 gms.

no number. ♂ = another - Dissected ♂ gave to M. Dary in formal. t. 6x3 mm. 240-130-30 gms.

above two taken in house, live traps.

24 April 3 1/2 km SE Tecuc, Dept. Alta Verapaz, Guatemala. 900m. 4679 ♀ ov. not cul. *Dendroica* 51. fat; 9 gms. magenta?

Netted among orange trees; grass + herb. ground cover.

26 April. 3 km S. of Telemán, Dept. Alta Verapaz, Guatemala. 500m.

Formal 4680 ♂ *Billed mouse* 200-90-27-18,

musky smell.

Base rotted palm stump in bush at edge coffee planting on slope.

SKull only 4681 ♂ t. 8mm *Artibeus lituratus* 90-0-20-23

Others in ESK catalog. By pond near house, mist net. Near palm tree.

30 April 1978. 2 mi. W. of El Estor, Dept. Izabal, Guatemala. 10m. elev. [Las Bantas]

4682 ♀ 1st ov. 10mm. *Myiarchus cinerascens*? 37 gms, sl. fat. (12 hrs. after capture) (12 hrs. after c.)

4683 ♂ t. 7mm. *Oryzoborus* *flavescens*? 12 gms, no fat.

4684 ♀ 1st ov. 4mm *Cestrygon montana* 125 very fat 12 gms. (12 hrs.) 1st yellow brown, legs pink.

1 May 1978

4685 ♂ t. 6mm. *Euphonia peruviana* (dead in net) 12 gms, sl. fat. [Finca Andres Rocja] (1370m. elev.)

7 May 1978. 8 km E. of Tacub, Alta Verapaz, Guatemala. (4400 ft. elev.)

Formal 4686 ♀ emb. w. hair *Sturnira* 29 gms. C-R 40

Formal 4687 ♂ " 25 gms.

above 2 taken in mist net near main road among citrus trees.

Specimen Catalog.
(Guatemala)

- 9 May 1978 [Finca Miranda] 3 Km. E. of ^{Km. E. of} Chilasco, Dpt. Baja Verapaz, Guate. 1900m, 6000'
- Formol 4688 ♂ Artibeus
- Formol 4689 ♀ Sturnira
- 10 May 1978. 10 Km NE San Jeronimo, Dpt. Baja Verapaz, Guate. 1500m. [Mr. Monterrico]
- Formol 4690 ♂ t. 13 Peromyscus 235-120-24-19
- Formol 4691 ♂ t. 11 " 224-115-22-18
- Formol 4692 ♀ " 250-128-25-19
- above 3 taken by EJK in dry streambed; Liquidambar, Quercus, Persea. 1000m. [El Marmol]
- 11 May 7 Km N. of Santa Cruz, Dpt. Zacapa, Guate. 226-120-25-20
- Formol 4693 ♂ Peromyscus Coll. EJK, live trap. 226-120-25-20
- Formol 4694 ♀ ♂ " 145- (tail short) 145-40-24-20, 32gms.
- Formol 4695 ♀ 3 emb. RH (GR Lmm.) " Coll. EJK. By deep hole in rock. 193-98-24-19, 20gms.
- Formol 4696 ♀ no emb. " above 4, + ♂ discarded, 3 ♂ taken among limestone boulders, lichen-covered broadleaf trees, oak. [1 Km SE of No. del Mono]
- 12 May 11 Km N. of Santa Cruz, Dpt. Zacapa, Guatemala. 2200 m.
- Formol 4697 ♂ t. 15. Epid. lge Peromyscus 262-133-30-22, 61gms.
- EJK taking, 2 more; ♂ others discarded, same kind. Taken near road in dense cloud forest, near lake under trees & logs. Same species as Chilasco, apparently.
- SK. + SK. 4698 ♀ no emb.; same: 301-160-33-23, 82gms.
- 13 May 1978. 10 Km N. of Santa Cruz, Dpt. Zacapa, Guatemala. 2000 m.
- Formol 4699 ♀ no emb. Peromyscus 224-115-25-20, 35gms.
- Dry pine slopes w. some oak; near logs & bushes, no rocks. Dirc. ♂ 26gms. t. 10; ♀ 26gms., no emb., parous; ♀ 25gms., no emb., parous; ♀ 21gms., imperf., juv. (gray); 30gms. t. 11.
- 16 May 15 Km NNE of Rio Hondo, Dpt. Zacapa, Guatem. 1700m. [Montes de Morán] 34gms. [La Casana] (2100m)
- 4700 4670 ♀ prep. Sturnira
- 18 May. 6 Km E, 2 Km N. of San Agustín A., Dpt. El Progreso, 7000'
- 4671 ♀ ov. n. ent. Aphelocoma unicolor 94gms., lean 7000'
- 4701 molting wings; put catkins head. Found dying on road.

11 May El Marmel ; Peromyscus, brown.

Discard ♀ No emb. Prob. parous.

239-120-25-? 32 gms.

Ante atr. face albin.

♂ 26 gms. t. 10x5. Epid. swollen.

♂ 28 gms. t. 12x7.

♂ 26 g. t. 6x5.

12 May Peromyscus - big gray, brown chest.

Disc. 61 gm. ♂ t 16x10 Dh. gray dorsum.

60 gm ♀, no emb., parous; taken 2 m. down. Dh gray dors.

^{16.}
= 4698 ♀ 82 gms

301-160-33-23

Brown dors.; black from
to eyes & around eyes.

16 May Big Perom. - brown chest, black face. Placental.

Disc. ♂ t. 15x10

♀ 2 emb. C-R 10 70 gms.

C Kotford
1978

5

Specimen Catalog

[La Casana]

19 May 1978, 6 Km E, 12 Km N. of San Agustín A., Dpt. El Progreso, Guatemala, 2100m

Formal ♂
4702 4672 ♀ t.5 Heteromys 204-157-33-18, 60 gm.

Formal ♂
4703 4673 ♂ Peromyscus 224-117-25-19, 36 gm.

back; Formal Moose-dark feet, gray belly, thin tail (shoulders eaten)
4704 4674 ♂ 225-116-26-18, 24 gm.

Formal same as 4673?
4705 4675 ♀ lact. Peromyscus 234-121-24-29, 48 gm.

Formal
4706 4676 ♂ t.12 X 6. " 240-119-25-20, 44 gm.
back severed by trap

Light gray below, luffy lateral red-tan area.

20 May 1978, 6 Km SE Pinalha, Dpt. Baja Verapaz, Guate. 1600m.

4707 4677 ♂ t.3 Cypseloides rubrus 19 gm., mod fat.

same species
Netted w. 4 others, w/ chestnut collar, over stream in pine-oak woods.

Other examined:
20 gm. ♀ ov. not emb.; 2 were 19 gm. ♀♀, o.n.e.

- end of trip -

19 May

Dis. Big Perom., buffy chest, black face, dark
gray back. Usual Chilensis type.

07 to 14X9 287-149-31-23, 6 + gms.

Koford, C. B.

1978

Journal

Mexico

Guatemala

(two separate trips)

C Koford
1978

1

Journal - Guatemala Trip

25 Jan. 1978

TO LA and Mexico

Departed SFO on Western Airl. to LA. Thence on night flight, Mexicana III to Mexico City. With Erik Koford.

26 Jan. 1978. Arrived 0500. Trolley bus to Aeropuerto station of Metro, but not permitted on because of baggage. Took a Delfin bus to west toward General Cosme. With help of 2 friendly boys, got off near ADO bus terminal on Buena Vista (N. of Plaza Com. Revolution). Took 10 a.m. bus toward Oaxaca. Arrived there about 2000. Clear, dry, cool. Stayed at San Tomas hotel on Ahacals, about \$5 for 2, with bath. Discovered that had lost my wallet which contained tourist card, among other things. Probably pick-pocket got it.

27 Jan. Oaxaca. To bank to report lost credit card. To minister's public office to report loss of tourist card & other things.

Then took 1730 second class bus to Tuxtla Gutierrez, arriving ^{on 28 Jan.} 0700. In rush to get tickets on bus to Comitán. Erik had his wallet stolen. We took 0845 bus (at 10 a.m.) of Cristóbal Colón to Las Casas. (Met Michael Marks of New Mexico, & wife, on way to Antigua.) Stop briefly at Las Casas, then on 1315 bus to Comitán. There immigration authorities inspected my papers; after much talk, they decided they would have to telephone Mexico City, at my expense, & could not do it until Monday. Spent night in Comitán at El Delfin; no water.

²⁹
28 Jan. Sunday. Took walk to La Quija, about 2 miles to N., where life primitive. Moved to La Villa, cheaper posada. Overcast yesterday, clearing today; cold when cloudy. Turkey vultures & black vultures frequent in air. Plaza walk-around in eve; music, parade w. fireworks - San Sebastián.

Journal

- 30
24 Jan. 1978. Mon. To Guatemala
Lv. Comitán 0800 on Transportes Tropica
for border. Wooded hills there. Inmigración officials helpful
& friendly, but telephone not working - so waited about 3 hrs.
Then line clear, & one guard telephoned to Mex. D.F. to verify data
of my lost tourist ed.; I paid 90 p. (22/\$1.) for call. No inspection.
Met 2 men w. car from Merim.; on to Gr. with them, \$2 for tourist
card. Cursory inspection of a few of our bags. Then the Merim.
men drove us on to Huehuet., where we sorted traveler's checks.
Took 3 pm bus for Guate.; arr. 8 p.m. Poor Hotel Diligencia, ^(for 2) \$5.
31 Jan. Shopped & explored in Guate. city. Visited Mario Dary at
Baton. garden. He said he had not read my letter about project, sent
lost Nov. Lig. N2 available at Kormos, ^{recovered} zone 2, & chemicals at
Kormos, call 9 m. 11 av. Plan to go to Estor via Eximilal bus
on 3 Feb. Stayed at favorite Club Suiza, \$5 for 2.
1 Feb. 1978. More shopping. 80% ETOA \$3.10/l. at farmacia.
Formalin, 2 lbs. 1.30 at Kormos; 1 lb. glau. acet. \$1. Visited
Inst. Indigenista, very minimal & sudy in zone 2; some info
on Rabachi. Mario flew to Estor for the day; it rained there.
2 Feb. 1978. Shopped for food & eqpt. Shell traps, blue
cloth, ammo components, ^{on} 4 avenida, 15-18 ca. Visit-
ed Mario; very busy as usual. Gave him rewritten plan of
S de las Merias project. ^{Get tickets for Estor trip (\$3 ea) from} Eximilal av., 14^a c. m. 6^a av.
3 Feb. 1978. Fri. Lv. Litagua sta. (15-42, 8^a av.) 0810 on fine
bus, a former grayhound, about 1/4 full, for trip to Merimosa.
alto. cum. cloudy, 100%. Second growth trees & brush on
hills. Black vultures. 0850, bridge at "Agua Caliente" overgo
some yellow (Cochlospermum?) flowers on trees; some red others;
mostly leafless. 0940, El Rancho - mesquite, sandalwood

Journal

3 Feb. 1978.

Dpto. Zacapa, Guatemala

cactus, food shades, dry. To E., gradually greener; 60' trees near Matagua R.; which was slow, muddy, 40-100' wide. Pte. Guijo, broad valley to N. Flamboyán tree (no flowers), calabash tree by road. Pte. Palmilla - 4' wide stream. Leafless trees on S slopes - gumbo - limbo? Rio Chiginto. Sugar cane. Teculután - 6' stream, pte, town. | Stopped at Santa Cruz for restaurant. Melons, watermelons sold. Local said road N. to Sta. Rosalia older, 8 km., + one up mtns. to marmoleria - can see it on slopes. He said "tigres" in mtns. Lr. 1045. | Jacapa rd. goes S. Rio Hondo - 50' wide, muddy; waterfalls in hills to N.; town - greener here; occ. Then mesquite again. Occasional Cathartes in air. Jones pte. - fast, muddy, 10' wide; waterfalls to N. Switchback roads up ^{slopes} to N. Pte. Santiago (10' stream). Pte. Achite. To N., S. slopes w. leafless forest 10m high; pines about 500' elev. above highway (earlier 1000', near cloud line). Pte. Arona. Matagua R. slower, wider. Mayanchar older. Occas. oriole, or blackbirds. Lolo older + pte - 30' wide stream. Km 179 Serradero "El Sauce". Some pines 200' above road level. Occas. ceiba tree. Pte. Doña Maria; R. Matagua nr. here. Pte. Mestizo. Banana groves. Jacapa - Izabal border. | Juan de Paz older + pte. Forest line of leaved broadleaved white-trunked trees, 500' elev. up. (K192). Palms in bottom. Occas. 30' pines nr. highway. Red strata rocks nr. here. | Valley widened. Rio Matagua, wide meanders. INDECA silos to S. Palms, banana. Los Amates town. Quirigua ruins to S. Some coarse grass hills w. very open pines (man - effect?). 11:50, turnoff to Maricao. Dirt + gravel road wound up wooded valley w.

3 Feb. 1978

Dpt. Izabal, Guatemala

leafed forest, so fairly solid; thinner above. Saw green trogon. Waterfall. Palm thatched houses (rancho). Limestone outcrops. Up to about 900' elev., then down to L. of Izabal. Planted row of 50' trees w. 6' O leaves. 1210, at lake edge. Air 77°; water 79° F. Some tree clumps to lake edge. Town 1/2 mile to W., where "ferry" waiting. Espinal dock w. finely made 40x70' palm roof. Saw 3 Pitangus on wires; yellowish ^{or olive-green} warbler (2 sp.). Cormorants - ggs. 100+ on lake. Pelicans - 9 on ggs. Sandpiper (small; wing band), gull. Waited to about 1330; then launch headed for Estor; arrived 1505 at Espinal dock w. palm roofed pavilion near the gringo "colonia". Saw tern. Near shore saw green heron (yellow legs). Hills to N. had forest above 500+'; second gr. brushy below. But forest rather near lake. Univ. San Carlos lab (P.R.E.A.) next to guest house La Punta, a mile from our boat landing. José did not show up; we hired w. our 100+ lbs. of gear, then got ride in pickup. José at the lab; living there w. f. & m. Mark, about 25 yrs, from Phila., also living there (here a month). About 40x80' bldg., concrete blocks, glass window blinds, w. hot water, ref., electricity. About 1/4 mile from edge lake. Some glassware & chemicals. ^{Cytr.} ~~Cytr.~~ no aquaria or large glass jars. José took us to El Estor to shop; usual older stuff. Oranges 3/5¢, mango 2/15¢. Prices high. The colony had its own line of stores near their quarters; a PX arrangement, not open to others. Put up bait net near lab; set out 3 live traps. No catch. Saw a few bats in eve. We walked to edge of lake & with dip net & headlamps got about 10 small fish, which

Journal

3 Feb. 1978.

El Estor, Dept. Izabal, Guatemala.

we took alive to lab; see CJK notes. $\approx 10^+$ parrots flew over in eve. Saw oropendulas. Mark said blue & yellow trogon seen near lab. Set up bat net near lab.

4 Feb. 1978. Rain night + most of morning. No catch in net near

lab. Large & medium parrots flew over. Amer. egret.

Green heron near water. Brown jays - flock 7 \pm in trees near lab.a black headed oriole ^{or Louis} in Cecropia. Humming (Amazilia?)at hibiscus flower. Petrochelidon ^{or majorsetta} near guest house; seen.One Sporophila ^{monticola?} torguensis same area. | Tried fishing & casting

specimen; strikes but landed none. | In eve hand netted small fish near dock & simulate in grass; obtained several species, which CJK kept for preservation. | About 10 slow-flying medium-sized bats flew from least landing shore when disturbed during day; some also from ^{overhang} of boulder above water, & seen flew from dock bldg. about 6 p.m. |

Moved net to near dock; another 100 yds inland, in grassy area at edge taller vegetation. No catch; checked 8 p.m. | also tried throw net & took small fish, to 7", including ovobry (photo; sl 1030) (Adolfo Pozuelo, caretaker, said common; EE-piece called ipeca).

5 Feb 1978.

El Estor, Lake Izabal, Guatemala.

No catch in nets. Specimen fished & got 400 gm. tetra, sl 305, and an Eleotrus, sl 127. Kodachrome of both. | Last seen

Crick caught a Keiosternon turtle; also Kodachrome. This morn, car hit me on road; Crick saved tissue in ETOH.

Took a Myiarchus in net & saved blood for DNA tests (see back of this page for descr.). Citroreline trogon - near dock,

K1,2
3,4.

CK 4638

tuberc. $\frac{1}{2}$ 07 to 3.0

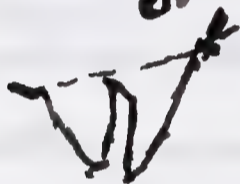
5 Feb. 79. La Panta. Myiarchos ~~typ.~~? DNA.

wing 01. t.l. 7" Crown dark rusty gray, bill black, back
brown-gray, tail same w. ^{narrow} ~~rusty~~ ^{rusty} ~~for~~ ^{rusty} ~~border~~, ^{rusty} ~~also~~ ^{rusty} ~~gray~~
throat + breast, yellow belly, no wing bars but outer
edges sec. rusty, slight crest, brown iris. Culmen 21.

Oryzoborus Sparophila

♀ to 11. L 1 m.

Dark rusty back + head, lighter rusty underparts, white
wing lining - no belly patch diff color. Tail gray-brown
uniform. 12 $\frac{5}{8}$ mm tal. l., wing 56. Bill brown.



sq. x-scat. bill

(
= 2-5 "A"

DNA blood to EOK.

Journal

5 Feb. 1978

E/ Estor, L. Izabal, Guatem.

Top of tree; spread tail on green short note. Saw yellowthroat in reeds near lake. Occasional black & turkey vultures. / With Mark, went by launch to Cerrada Los Lagartos, 7 km. to SW. Lake murky. Flocks olive. cormorants, to 100+ at times. Occasional gull; faint dead notes; L. atricilla? Also an orange-billed tern w. mod.-forked tail, fairly large. 1 ♂ spray. Occas. anhinga. Common & noisy egret. Little blue heron (or r. sp.) Ardea herodias. 1 Mycteria flying. 1 Podilymbus podiceps. A flock of large dark ducks w. large white speculum - Dendrocygna autumnalis; 20+ in flock. Large pigeon, band-tail size; gray & cream - nigrirostris? Occas. 1-2 in trees. Saw a few jacanas at edge Cerr. Lagartos. (This area a wild-life reserve now, and Dory). We saw a 2' long swimming in inlet; later layed on floating log. / One saw big turtle w. ridges on back; saw heads of 2 other turtles, which dove, & one on a dead stump top in water. (The water in inlet of Cerrada dark, & stinky in it black; apparently few fish in it (cast net, & spinn). Saw 10+ soft-flying brown Oreoscoptes flying among trees over water. / We returned to Los Lagartos. Saw Centurus (purpurascens?) woodpecker in tree near lake. Ho Nethel seedeater ♀ for DNA sample. Hung but not at dock. Two R. naso taken. Artibeus lituratus in another net. (DNA samples taken) (see EJK notes).

6 Feb. 1978. Strong wind. Adolfo P. + Mark took launch to Palote. Not took Dumetella. Walked in grassy field near airstrip & flowing stream. Call Sceloporus for DNA sample (kept 1 spec.). Saw 6" Basiliscus, & a turtle in stream (Kinosternon; banded plastron).

Journal

6 Feb. 1978

El Estor, Dept. Izabal, Costa Rica.

Saw white-collared seedeater + volatinia (gray, ferrugineous).
Only old oreopendula nests where Erik saw last May. / In morn,
saw 3 toucans (red rump = aracari?) fly into trees near
boat dock. Net took Myiarchus cinerascens, Tyrannus melancholicus.
Released first. Also Catharus thersites, + Amazilia sp. near
lab garden in net. Caught green heron in last net near dock; photo'd
Erik, took 2 more art. literatus bats in nets. Clear cool evening.
Myiodynastes? calls from yard; saw it sail terrace each eve. Swifts -
saw over lab eve of 5 Feb. Progne? or andara saw 3-4 Feb.

7 Feb. 1978. To dock at 0700. No bats in net. 3 live traps in woods
spring; no catch (porcum?). Bird net near house took Volatinia +
Psittacus (1.1 galls) + ho slanders but huge hairy. Near dock, I saw 2
trogons (litaeolus) perched 10' apart in trees (20' up) near water.
Paled out inlet to edge lake; saw 1 Haliastur swimming along shore; it
crossed 40 m. inlet. Saw 1 cattle egret perched tractor. Pair large
parrots flew over. Micropodops flycatcher near house + dock.
Net; blue or indigo hunting sp. (released). Summer tanager sp. (?), r.

Calm day, no clouds. Netted a Pitangus sulphuratus; photo'd.
Later Erik netted a Polioptila guttata at edge wet brushy patch. Brown jay
(♀ 19st. foll. 1 1/2 mm).
netted near lake (ONA sample). During day Erik caught a few beeloporus
on or near roads + rocks. Evening - net out near dock, over water; bats
flew close to it but not caught (R. nasus?); took down 9 p.m. Clear night.
Another Artibeus lituratus netted at edge wet shrub 10' higher. Eve - set 3
small local live traps w. meat bait under bushes near small pond. 8 p.m.,
took a 4-eyed porcum (Chilomen?). retachinus? tylosius rator (sp?)

8 Feb. 1978. Calm + hazy. Erik took a Centurus woodpecker in lab net. A
large crested woodpecker (Dryocopus lineatus?) escaped. Also a small leaf-

pickup.
Didelphid
jaw.

K.

K. liv.
K. boa

K

Journal

8 Feb. 1978.

El Estero, Dept. Izabal, Guatemala.

moved but there. Heard chachalaca & H. on lower slopes their noise.

Erik & I pulled boat out inlet, ^{we} saw gr. 7 (n+) ^{gr. billed} anis, 1 brnt. billed heron (5 m. away in bushes), Helminia (100 m. W. of site yesterday; it flew short distance), 1 yellowthroat, citreoline trogon, grs. of short-billed regionalis; a Chloroceryle pitris (? - alone, eating whole 10x15 mm. red & yellow fruits from tree); hummer ? w. straight red bill, black head & shoulders, rufous tail dorsally, perched (Amazilia questrensis ? - only looks seen). Took a Tricatharus in net. (Possibly belted kingfisher seen in Cecropia last eve, at a distance) 1 Baltimore oriole; stays bushes near inlet. / Erik went in boat net & released: Volatinia, Sorophila tinguicola. w. adolfs to get water samples; back 1130. / Flader Cassidy in grassland. Gr. anis also in bushes in grassland, to S W of lake. Not across dock entrance 5-9 p.m.; later near but no catch.

9 Feb. 1978. With Erik to Patate; adolfs Parguiba ran us over in boat, about 50 min. on calm water. 0/10 alts st. cum. clouds. Saw 4 pelicans in gr; occas. gull or large tern. Swallows in gr. To S. of Patate, rtr. rise steeply; many canyons, largely forested & green. Flat mostly grazed grassland, w. scattered palms & other trees. Most huts w. palm thatch. Barbed-wire fences and hundreds of yellow cattle. Hiked S. toward mouth of canyon & J. Maizli finca. He had many palm huts, & a larger concrete bld. w. large radio antenna. Graveled airstrip. About 45 min. walk to house, 15 more to river in canyon mouth. Clear & flowing; many fish to 5" long. Broken up forest but trees to 100'. / Erik saw a mayana (2 4" antlers, white under tail, chocolate brown body) at 15'; apparently sick. / Parrots flew over. A gr. of 20± swifts; some had white area at shoulders (= Parypatila ?). We saw grs. of 10 and of 8

Journal

9 Feb 1978

Patote, Dpt Izabal, Guatemala

Oreophaga, in bushes + lower branches trees in short grassland.
 Grackles nearby. Cattle egrets - 1 - 5 yrs. away cattle.
 an apiary with 100± hives, fenced. Heard no alouatta. Saw
 hermit (*Phacothornis*) at plateillos + other flowers among shrubs.
 Cich saw apparent *Tityra* (red mask). *Dryomys lineatus* occurred
 dead stick in river. Small kingfisher - green w. white collar (*C. ?*
americana?) over river. Trail continued S. to an olden - *Roulin*
 Jerusalem? that Cich visited last May. / People not curious. We
 walked back to Patote, + took boat back to Los Santos. / After-
 noon of 8 Feb. we visited Eng. Wortman, of the Equibol plant,
 at the local "club" (food, drinks, pool, movies). He works closely
 w. Mario D. (company pays for environmental studies). W. will ar-
 range club privilege cards for us, + trips by launch down Rio Dulce.
 This afternoon, we visited Wortman at nuclear plant. Apparently
 co. has about 3 land concessions, one to S. of L. de Izabal. The
 close one about 20 sq km; present bill of operations should
 supply one for 5 years. Only water pollutant is heat. /
 Talked w. plant employee Luis Ponce, who ^{had} ~~not~~ prospected in
 S. de las Merces 20 years ago. He said there were puma +
 a spotted cat, a faisán. Trail from Banco (rd. from T. down)
 to Jones (NE of Rio Hondo). Some access from Santa Cruz up
 to mammalaria, then walk ridge. Another trail from Lomitas
 (on lake) to Los Amates. He thought game + even snakes
 had decreased over years. But thought still some white-
 lipped peccary in swamps at head of lake. Few mice in S.
 de las Merces - leads to. Still some local hunters at Cator. Cator
 w. lots near Sanahué. W. said Miguel Lamy in charge of

K. Little
Trop

Journal

9 February 1978.

El Estor, Dept Izabal, Guatemala.

agricultural development. We saw several of Dary's PREA reports; mostly lists, compilations of water analysis data (chemical) for many stations around lake. Worried about possibility of introduction of exotics in l. de Izabal. / We returned to lake area. Set out 2 nets on lower slopes to N of road, where mainly brushy second growth w. larger trees in arroyos. / Both E + W. G.I. prob.

10 Feb 1978. Rain at daylight. One net to N. had 2 Artibeus
($\overline{0.7}$ & $\overline{0.7}$)

lituratus + 2 catbirds. Other, across w. newly cleared and
swath in brush, had A. lit., 2 A. phaeotis, + 2 glossophy-
ines, ^{b. 2mm.} called scudator, + Amazilia. Belmonte birds. / a Myiag.

tuberculifer had $\frac{1}{2}$ " follicles. Coll Later in morning, garden net
took very breasted grackles, 2 green vireos (? see over). / Calm

overcast day. Crib to colony to sleep. Took 2 Habia ^(small skin) ^{CK 4637} (gutteralis?)

in garden net. / It took it easy w. gut troubles today. / One net and

pale stolen. / Took down nets in prep. for absence tomorrow.

11 Feb. 1978. Saturday. To dock opposite colonia at 0700. Calm, ^{overcast} $\frac{1}{2}$ overcast

A gallito tree in orange flower had at least 4 orioles (A. prothonotaria)

feeding. Many bees around flowers. Also 2 large blackbirds

(Dicae?), + a hummer (Amazilia to.). / Talked to a man going fishing

+ hunting; works here but formerly Bto. Barrios. Saw skin. Said

hunts parrots + toucans at night at head of lake. Big per-

(white-lipped) cary also present. Arremon killed parrot lake, not long ago. Main

food fish in lake is robalo (= snook?), the many tarpon. Also manatí.

A gringo said heard that manatí found dead across lake about

2 mos. ago. He had heard that meat sometimes sold for 40¢/lb.


(green back, white rump) / Saw a N-g. swallow w. rope threads in bill on dock; nesting? /

Lunch Gloria came at 9 a.m. about 14 passengers w. us in Barrios

CK 4637

Green vireo? V. oliv.?

10 Feb.

6" tot. l. (bill tip). Dull olive green above; more brownish on rump & tail. White eye ring + line to nose. Slightly curved bill.  yellow throat + breast. White belly + crissum, yellow wing lining. No cap. Brown iris. Black lores. (2 alike - released).

Journal

11 February 1978.

El Estor, Dept. Izabal, Guatemala.

25 w 2. 165hp engine. Saw terrapin rising in distance. Stopped in Rio Dulce at Catamaran Island, near Ft. San Felipe + bridge in ^{some} construction. Some luxury boats there. Shown lake + river nearly all wooded. Carro San Isidro to SW seemed wooded on upper slopes. V-g. swallows at Catamaran (hotel, gardens). A large gray-backed gull. But no additional bird sps. except Fregata near Livingston. Puerto Rio Dulce only about 100 m wide. Channel said to be deep, 300'. Some vertical limestone cliffs. Steep forested slopes w. some brush (illeg. to cut trees). Livingston a small town, lumber section 3 blocks; old wooden buildings + rusty roofs; population largely black. No roads out. Daily mail boat from Pto. Barrios. Small oil pumping dock of Chiriquel. Fruits + beer supplies sold. Cacao on highway to E, w. coco trees. Fregate birds over river entrance. We walked about town for 20 minutes, then back up Rio Dulce to ^{Catamaran Isl.} Catamaran Isl. Lunch stop. Then on thru Lake Izabal to Colón, about 5 P.M. Oreolestes still feeding in gullies trees. Put out one net across recent clearing in brush, to N. of highway. Caught an Aratinga in garden net, later released.

12 Feb. 1978. Sunday. No rain; calm. Net held a glaucous-winged bat + Artibeus lituratus (juv. - released). Walked into El Estor. Erik went with archaeologist for day, + I went w. Tony Morán (hunter on dock, 11 Feb.) to a Lion's Club outing at Rio Dulce, a few km. E. of town. Dirt road thru corn fields (green corn to 6'); some cattle. Rio Carro fast + fairly clear, about 7 m wide. Rio source slower, wider - said to be good snook fishing at mouth. About 30 people came; barbecued beef, turtle soup, chicharrón, beer, rum, + so on. Much talk. I met town mayor and several Guatemalan ^{Eximbank} plant people, including Luis Ponce (large gp. of debris in this area). Tony M. had gone



Journal

12 February 1978.

Nr El Estor, Dpt. Izabal, Guatemala

to Magnette Univ., Milwaukee. 2 years here; maintenance dept. Met Dr. Juan de Dios Calle, head of lab & snake buff; good English. Says lab has facilities for enzyme analysis; may be able to make dry ice; relative in law of Mario Dary. Men thought about 8 kinds of turtles here. Said porpoises sometimes in Rio Dulce. Manatee fairly common; ^{Morales} ~~Moogles~~ said saw about 20 one night. They think few people ^{farm} the manatee, tho M. said he shot one about 2 years ago. (His Saturday hunting-fishing trips yielded only 1 large squirrel, shot w. 30 cal. rifle). / Later, in cage in El Coto, I saw skin of Felis wiedii on wall; spots dark externally & little open; tail long. Said taken about 2 years ago in hills to W. / We set up net same place as last night. Heard Agouti near lab in evening.

13 Feb. 1978. In net among shrubs, a ruddy ground dove (Columbiga) and a Cuphonia (T. lauta). Net in garden took Antennae aurifrons, Dendroica petechia, Amazilia tigris, & scolder long 0900 (C. talpa-coti & 1 got. foll. 2 mm., tiny id.) released on Cupido. / We scimed in 5' wide stream through grassland and shrubs, 1/4 mi. W of lab; about 7 sp. fish, preserved. / I walked to colony & back for groceries. Clear sunny day; hazy. The plant puts out black smoke all day. / Cus, set net at dusk. About 200 m. out in inlet, 2 or + nearly black short tailed birds, probably Cyprip multigida, swayed fast over water, back and forth close to us. C. carolinensis? No apparent light markings. Brownish black, dull, & ^{rough} ~~rough~~ rough rough rough. / 3 bat nets are out.

bd. id.?

14 Feb. 1978. Toss. Took only one bat (A. phaeotis?). Net took an Cupido (olive back, yellow below; naked). We went on water sampling trip w. Along to mouth Cusumbe Lagoon, water outlet & inlet from plant; off Coto, & mouth his house. Near water

Journal

14 Feb. 1978.

Nr. El Estor,

outlet of plant we saw 2 hawks, 1 w. baby (≈ 165 ?), in tree 100m. away. (Bant man said a go. trapped by clearing around go.) Hot muggy lunch, day, but no rain. / Visited Juan Calle, head of local lab, in eve. Received worm-like snake he had taken from hill to N. of Cator recently. We observed woodcutters getting firewood near Las Dentas. Calle said destroying breeding habitat of some birds. Calle said that in 1952 only about 200 people here; now several thousand. He had worked at UC Riverside in past, on soil problems. seemed very cooperative. Good Engl. / Two rats out at night. Temp about 27°C . today.

15 Feb. 1978. Calm, muggy, overcast. One Vampyrus taken in brush south on hill to N. Took in notes + prepared for trip to Pango + Talamon. Abolfo drove us to Pango (lv. 0930). Much cleared and burned land to S on flat. Many congo palms, + orchard of African oil palm. Many "living fences". Crotaphaga frequent + tame. Little agave. Patchy woods on hills to N. Corn + Egypt. corn (maizilla). Wide gravelled road. Aspart green. Rio Cabanon 100 m wide, fast, milky (copper mine? upstream). Pango a small quiet town. / Hopped a small truck full of Ketchin, including costumed $\text{F} + \text{F}$, to Talamon (25 $\frac{1}{2}$). Isolated large Ceiba tree. Congo in pasture. Busy market in T. 1130. walked to river ($\text{E} + \text{S}$ of center), where bridge under repair. Crossed 40m. river in cays (5 $\frac{1}{2}$). Tractors w. trailers waiting to haul people; none to Zarco for on hand, so walked road through 10' corn to Miravalle, foot of hills. Soon got tractor ride (on sugar roller, w. many loads). 1 hr. slowly to Pueblo Viejo on Rio Tenaja (40m.). Thick cane river stream. Corn, cattle. Many ariz near road. Living fence various spp. incl. ceiba. / Another tractor ride. Cross Rio Tenaja (fairly clear). On to gate of finca Las Colinas + El Paraiso,

Journal

15 Feb. 1978

Nr. Telemán, Dpt. Izabal, Guatemala.

4 p.m.

small store, end of tractor line. Roughly to E. (Store had a grown female gave a faisan, raised from chick; also 2 grown black-br. wood ducks w. chicken.) Sp. citrus trees (grapefruit?). Some irrigated pasture. We walked E. an hour (talked w. Victor, of Finca San Jorge y Paroma), to store of Rubén Patillo w. his family (he was away - recommended info. source). Walked on to ford river (60 m; fair current, rocky, clear; small fish looked; said to have ipisaca + machaca). Green veg.; palm roofed ranchos w. vertical stich sides & dirt floors. Hiked up trail to SE; bushy second growth, narrow track, frequent Kekichis. Camped at corn husking shed about 500' elev. Mostly forest cleared to about 1000' level. Corn & beans. No rain.

16 Feb 1978.

Rio Zarco, Dpt. Izabal

Mist in canyon. Chachalaca calls. Brown jays. Turkey & chicken calls. Most flattened spots had ranchos. Hiked an hour. Small store at Buena Vista (asked for agua; got weak sugar coffee; water in kay-lá. Near open-doles. Saw morpho, small teide, basiliscus. Some coffee bushes (no beans now). Dry corn on cob in neat rows in shade; pear hang from rafters. Many trails; often backtracked, & asked way. 1020, 5' wide clear stream about 1000', about 400' above Rio Z. level, 1 km SE of Buena Vista, shabby slope; netted several small fish (EJK catalog). Air 81°F, water 74°F. Trail eventually down to Rio G. 1" crab at edge. Saw many small fish. Clear, rocky, fast, 25 m. wide. Jungle vegetation at sides; many ear cades. Shale rocks & outcrops. Waded river. Lv. 1250 + up steep trail on W. side. To a crest, then SE along it to new clearing (1 yr? much slash). Met boy who said had rancho there; could walk to Jones (= hoc-nays) in 5 hours. Had .22 rifle; said coche de monte, moroc, tepalcuitle, crocods there. At edge clearing we saw a large white hawk perched, rather tame (Pseudosparus; black band subterminal on

fish spec.

Journal

16 Feb. 1978.

Rio Zarag Dpt. Izabal, Guatemala.

tail; black narrow mask, black remiger). Took trail up ridge to SE; became faint; tried others; returned to clearing & camped. In picking up log, I was stung on finger by 4" black scorpion; but no special reaction but temporary pain. Swifts - mainly or entirely black; 100+ in high milling groups. Heard tinamous - I judged *Tinamus* & *Cryptellus*, as on B.C.I. Heard toucan croaks. Caprimulgids active in eve.

Cleared sky, no rain. Calm night. View of sheer face of Co. Pando to E. (limestone? largely white).

17 Feb. 1978. Saw several toucans, including big one w. green bill, red-brown tips, red cranium, white rump patch, yellow face-throat-breast.

Small parrots. Large woodhewers. Big woodpeckers (*D. lineatus*?). Hummers.

A birdy place at 0730 (hazy sun). Walked back down to Rio Zarag. Bathed, & departed 0930. Saw small woodcreepers. Returned to Buena Vista (start 11 a.m.).

Saw 2 *Leucopternis* circling together; go swifts near them. Saw red & black banded snake about 2' long by trail in green clump. Frequent butterflies. 1300, arrived fortune at Rio Zarag.

Waded across. Visited w. Ruben Portillo. About 45. One of first settlers at Buena Vista (most here only 3 years, few over 5). Claimed to have taken 12 jaguars, 10 pumas, in old days. Said small dark deer in mts.; whitetail in low country. Said tapirs still near Co. Pando.

Coche de monte (jaguar?) - big peccary present. Saraguate & another big black monkey (mico) w/o throat bulge, sometimes white tummy (otelo?).

Good clear Spanish & knowledge Kekchi. Possible for good man to hike to Jones in 1 day. Can recommend guide. About 20 years ago, man & wife collected birds here w. very fine shot (the Lords?). Knew of no other bird-ogists. Fish - 3 years ago, much mud in river; few fish since. 1 hr. down to Pucblo Nuevo, where boats to Palochic R. A trail

fish
spec.

(ETK coll. fish)

Journal

17 Feb. 1978. Fri.

Rio Zarco, Dept. Izabal, Guatemala.

road to Patate + Marinon. *Allygator* occur. in rivers; hunt and sell; \$5 / ft. *Reyzopel* (*sarcophag*) now scarce; formerly more. Pajuit, tinamar, perdy. E. J. K. got some Koblihi names. Friendly + helpful man. Wife fed us tortillas, scrambled eggs, sardines, sugarcane. We walked back to San Colinas. Talked w. poludismo man, who said this year over 2000 cases in region. He had pills for cure. A truck took us back (about 30 km) to Talamon bridge (Miguel Angel Ramirez; agronomist; lives near town. Portillo has room in veterinary store bldg). Miguel told us of a German living at Fra. Constanza who collected butterflies. (Klaus Dregue?) Hills S. of Constanza appear relatively little cleared; Co. Rapa + other peaks visible today; cloud plumes. / Caught bus back to El Estor (1²⁵ ca.).

18 Feb. 1978. Sat. Little field work. Set out net in garden

and 2 on slopes 1/2 mi NW near canyon. Saw gp. 22 turkey vultures going over hill to N. in evening. At least 3 "Tapacavinas" at once on gravel road; many calls. The

EJK spec. archeologists brought *Eriha* curious food, found w. another about 3' underground on flats near becho. Eriha to town + shipped.

Mostly wrote notes on Zarco trip. No rain.

Sunday.

19 Feb. 1978. A *Sturnira* ♀ (w. evl.) in garden net; EJK spec.

Other nets blank. windy at night. Night drizzle morning.

Took in 2 distant nets. In garden caught a white-eyed vireo or flycatcher (CBK ♀ 4614; not breeding). Organized gear for move to Purdha area. Net up in garden to 9 p.m.; about dusk,

another white-eyed vireo (?) in it.

20 Feb. 1978. Drizzly. Left by bus at 0610 w. about 100 lbs. gear for upper

Pobochi V. Flat tire; but Talamon 1030. Luniest. Hills near there and up to Papallha Purahi (1010), where much open grazing land. Soil here above, spectacular

CK spec.

Journal

20 Feb. 1978.

Qusis, nr. Puralhá,

small waterfall in pockmarked limestone cliff to N. of river (fast & mod. clear). Road steep & windy above Puralhá; some steep slopes had been cultivated. Lower slopes brushy & steep. Some rice houses on river. Tanager had more modern buildings & gas stations. Up to San Julian. Then to Tostes & back - pastoral. Then past Puralhá & on to Quitzal Res. at km 156 on Carretera, cantankerous, away for the day. Conditions about same as in April 1977 visit. We put gear in Lameri house & walked around. Saw *Sphyrapicus varius* on trunk, warblers, hummingbirds, big blackbird, oriole - but low overcast & birds inactive. Coc - heard no tinamous or crested calls. Dogs, hares, chickens, turkeys around houses. Pine, cedar, various evergreens ⁱⁿ near river; taller trees to W. on hills, above clearings. We hope to establish a "base camp" here.

21 Feb. 1978. Drizzly. Saw G. brought fresh tortoise. G. had returned; talked w. him.

Then walked S. on road to visit Paul Garrity (Plantain Mts. Tama, km 165). More cleared in area than last April, & some neighbors now. He & sons, mainly Jimmy, said that w. aid of John Campbell (Hualuja, Texas), had trapped for rodents & taken about 6 birds, including *Riethrodontomys* & a big rat. Also had put traps for bats & taken about 5 birds, including vampires & western feeders. Interest in reptiles had decreased; apparently Campbell had been paying for them. Next walked to the university ranch, now overlooking road at middle of Carretera de los Quitzales; & saw ^{hatched} on power wire.

km. from Lameri place. Met caretaker Lorenzo Chiquin; lives Puralhá, rides motorcycle. He friendly & talkative, but little faunal knowledge.

Palm-roofed, board-sided house about 20 x 50', divided into lab, kitchen, & dormitory rooms. Only a box w. concrete floor, at present. The forest, w. tall broad-leaved trees, branches, rose steeply to W. No trails yet. Univ. now had at least 15 acollonians (1500+ acres).

Tekemau - Rikau Portello - now in vet. store.
Miguel Angel Pamirón - ^{now} grain store -
has car now near to S.
Klaus Dregue ? - butterfly - F. Costanza

Sadat - not to church, Tactic -
Couple translate Kekeli.

Col. Estrada - Santa Rosa, SW of Peralta - road opp. Tefo
much land - wife sp. English.

Pamirón Tomae, younger - Tucuru - family
much land to N. Friend Paul Garrity.

San Cristobal - Jarvin

Journal

5300' (1585 m.)

21 February 1978

Quisic, Dpt. Baja Verapaz, Guatemala.

Stayed cold, foggy, all day. Put out 2 live traps, 1 net, near Lameri house, in opened grass-twig mixture. ^(no catch, occurrants) Saw Colaptes cafer; 2 together. + Wilson's warbler, hummingbirds, green sparrows, other birds.

45°F.

22 Feb. 1978. Overcast but high. Waited for 0730 bus to Quetz. Near road saw Accipiter fly over, + one long-tailed tyrannulet (= quetzal).

Heard Oreotyrax calls from brushy areas. / Bus arrived 0740. 10 min.

to Chileno Rd.; 23 min. to La Cumbre, 4800'. Wet forest changed to

dryer, w. more pine, + ^(1/10 cloudy) clayey shrubs, near Matanzas. River

stopped about 2500'. Lameri, dry brush incl. mesquite; few rock

outcrops. Mazam rd. jct, km 102, 1400'. Pandolera cactus (?), +

some flat-leaved cactus. Rocky soils. Grazing terraced fields. 800';

dry creek + dry river bed; larger trees w. green leaves line shores.

Thicker mesquite + cactus. Sawmill about 1000'. Steel bridge,

water, riparian trees, 800'; 1 km. to El Rancho. 70 min. to there. / a

stop of about 20 min. Saw iguana, to 2' long, in market; in-

active, on boardwalk above highway. / Delay on road at Agua Cal-

iente for 1 1/2 hrs. Arrive Quetz. 1:30. To Chetel Surja. / Then visited

Maris D. for letter recommendation. (Most of our mail had been sent to

El Estero!). Plan to see INAFOR, Natl. Park, to see Victor Martinez, mañana.

23 Feb. 1978. To see Martinez; arr. 0830, near airport; small wooden

shed of 1 room. He friendly, but not biologist. I have to write a "solici-

tud" on sealed paper to ask for permit. Returned to Jardin Bot. to do

so. Maris + his secretary helped. Took it back to Martinez; late

Postal strike - no service for a few days. ^{ldg.} in day, so return tomorrow. (But got approval of another official in other.)

Fri.

24 Feb. 1978. 0800, back at M. office; he came about 0900. Typist

had to write permit on sealed paper, in other form; took 'til about

noon. VM had gone, so couldn't get signed; possibly back 1400. So

Journal

24 Feb. 1978.

Guate., Guatemala.

we talked w. 2 other officials, who poured back to V.M. | Returned to city; shopped for mouse & rat traps, lamps, machete, food, etc. Then we took 1630 bus toward Coban; \$1.50 to La Unión. Shorter delay at Agua C. & El Rancho. Foggy to N. of San Matamoros. Arrived Lema 2030.

25 Feb. 1978. Sat.

Quisís, 5200', Dpt. Baja Verapaz.

Calm, $1/10$ clouds, sunny. Out about 0830, looking for birds. Little action. Saw fulvous headed flycatcher (*E. fulvifrons*?) sev. x. Wilson's warbler. 2 W. bluebirds. Hooded jay, 3. Flicker. Centurus (barred front) w. under olive back, red nape & chin. Grosbeak (black, glossy, light iris). smaller backbird. Heard Alouatta to W. | Later, to E. of highway, visited fish ponds. Walked 1 mile on trail. Saw black hawk w. yellow bill & legs, ~~bt~~ gray-black breast & below, w. wide sub-terminal black band on white tail (*Buteo*?). perched. Saw a breasted, indigo or blue; mixed gray-brown & blue plumage, on ground. Another large hawk flying; whitish under wings & black band subterminal on white tail (*B.*?). | Tadpoles, & Rana pipiens? frogs, but no fish in streams (except in picnics). Back to house. | Expected Mario D. to come, but he did not. | Alto-surrealism in p.m. Prepared mouse traps & set near bed (Vicente Lema property) stream near Rancho Guisayate (10 small, 3 rat). Saw 2 apparent violet-green swallows in air; again, a few black swifts or some white entirely. | Mario and about 5 students arrived 3 p.m.; had lunch at the university ranch near Pucallá. We talked & walked $1/2$ hr., before he had to leave. His knowledge of plants appeared to be poor; did not know any oak, or the differences between the 2 species, or the trees that quetzals fed on. But he said O.K. to collect rodents & bats on Lema's ranch. We put up net near Guisayate; another 200 m. upstream.



Journal

26 Feb. 1978.

5 Km ESE Puralha, Dpt. Baja Verapaz, Guatemala

4615 Tanager held 0, caught one w. 60 gm. ⁴⁶¹⁵ Peromyscus-shaped ♀, lost. (spec. CHK).

4616 Upper nest held yellow small flycatcher, + 2 hummers (released). Hummers: one large, ⁴⁶¹⁶ Campylorhynchus? white spot just post. eye, slight downcurve in bill about 35 mm long, green back, gray throat; tail bronze; then black distally, w. tip's ^{white,} ~~white~~ little medially, much laterally.

ID? Hummer Other Trochilidae w. nearly straight bill about 25 mm or less, descending white line behind each eye, small size bird, green back, understated tail. / Later saw a yellow warbler w. gray breast + dark streaks at sides breast. / Much Ortalis calling from both E. and W. about 0730. / Heard & saw the guadalupeana singing atop tall streamside tree; unmarked ^{dark} gray back, ^(white eye ring) gray malar stripes on light gray; Cuck says white outer tail feathers; short bill = Minidae? / Small wood wren w. short tail on treeline in moss. (= 2 sp.) ^{light} gray belly. Apparently eat spherical 20 mm diam. acorns (leaves) and 4" green pine cones. Eupidox fulvifrons conspicuous atop trees. / Saw trogon perched; tail w. fine black + white bars; belly red, bill yellow; light green on back gray; no apparent white below. dark breast + red belly. / Saw ^{Setophaga} Mediant (Am. ?) briefly, 10' up in trailside tree. / Back to house 0845.

Prep. some lizards taken this morning. / Left about 0915 for clear hill up Co. Carpintero to N. Calm, elev. Searched bromeliads, under logs + rocks, rotting wood. Captured a few frogs + lizards (Anolis, Craugastor) (see ESK catalog). Reached surveyed line at about 2000 m. in forest at 1320. Forest a mixture of species, much tree fern + bromeliads, up to 30 m. tall trees, damp + some rivulets. Lower cleared and had stumps of former tree ferns to 10" diameter. Almost no birds seen or heard in forest. Descended back to house; dark increased. / Saw apparent rough-winged swallow flying near house. / Set out 10 mouse traps, 3 rat, + 2 live, in bushes on slope, under

Jurnal

26 Feb. 1978

5 Km ESE Puralha, D. Baja Verapaz, Guate.

fern clumps, and near rocks by stream. Mail from MVZ, sent Feb. 3, finally caught up with us, sent by Dany via car. Calm night.

27 Feb. 1978. ^{Mon.} Traps held 1 mouse (OT 4617). Net near fish ponds held 0.

Eide saw red & green trogon w. white band betw. colors on chest; = T. collaris?

In open near stream I saw guadalupe (chest & belly mod. gray, uniform except for malar area). Two wrens together along tree trunk & bushes where yesterday; fine dark marks on wings (+ tail?). Several w. bluebirds atop tree. Camp. fulvif. conspic. on branches near stream. We prepared to go to Chilares, w. minimal gear. Took bus 1445.15 & ca. to Chilares rd.

Hiked up about 2 km in open second-growth pine (5 needles; mostly under 10" DBH). ^{6000'} Got ride to Chilares in lumber truck. Shopped food in C.

Then walked to Finca San Jorge. Blackberries - many, some now ripe (more advanced than at Querer). Saw gp 10⁺ band-tailed pigeons in small tree. Mainly green-leaved brush & brush, w. occasional trees left from forest. Logging of royal at F. San Jorge. Also firewood cutting, & trunk of chute (two fern) cutting. But still large shrubs of cloud forest near house. Heard Trogon mexicanus. Put up 10 m. net on crest ^{1/2 km} to NW of house. Set 10 snap traps (mouse) & 2 rat.

28 Feb. 1978. ^{Tu.} Slept in house. 2 workers also staying there. Heard calls of caprimulgids on ground in eve; later, calls 2 different kinds owls. Net held 0 bats, but 1 thrush (ETK cat. - blood) (white spot post eye) 4618, 1 hummer (photo). Trogon - Reithrod. in bushes by fence on house. ²⁴⁶¹⁹ Lge. mouse - rat under bridge on house. Another in hole under tree

limestone edge forest. Saw 01 quetzal in flight. Saw 2 jays - blue w black area eye & malar (Cyanolyca?). Sciuus - brown, fox-eg. size; 1 tree, 1 ground. Robin - lge, yellow bill, clay color across breast. Many other birds seen briefly; rich in species in partly cut forest. ^{Rodol f.} Carlos

son of Heriberto, arrived in night. About 25 yrs. Attended U. San C. Now

K

specs.

1 Mar. - EJK #89 ♂ t. undesc., 2 mm.
246-137-31-21

juv.; of CBK 4619 sp. ?

saved organs, 88% ETOH.

2/28 Small flycatcher seen. Empid. ?
gray thr., yellow belly, gray back, brownish tail,
faint eye ring, buffy wing bar.

Journal

1900m.

6000'

28 February 1978.

Nr. Chilasco, Dept. Baja Verapaz, Guatemala
Palmar

representing owner here. Krumm M. Dany. Has 20 ga shotgun - shot at ~~plomas~~
this morning. Said Tigritor in area. Darter in some parts. 2 ajia paccari.
Says local log gets many niñor dormidor under chute (the fern) logs. We
hope to go to San Antonio w. him tomorrow. He offered use of house or base.
He says Marie too much protestant; wants this area as a protected natural
park. Seems versed in gen'l ecology. / Room - no birds in net, but two new holes!
Almost clear warm dry day; dewy morning, 50°F. 0630. / Reddish small
snake on road this morning; ESK spec.; photo. Pigeon - gray, no band tails;
short-billed p. ? Spec. 5±. / Lunch w. Rodolfo. A boy said knew of skull near
San Antonio; killed in area about 7 yrs. ago. All agreed there was a tyrillo.
Clear & warm afternoon. Walked trails to S. Delapour on log. Little activity.
Saw scudator syntad (Oryzoborus? ^{lye bill.}) / Visited site mogal logging, 1/4 mi.
to E. Logs pulled down slope out of forest on clay rather w. spoke of
ofern. / One net remains up. Set 12 traps. Net held lye. hummer with
green gorget & blue frontal area; fed, held overnite, photo, released. / See - heard
owl calls - hollow woody timbre; monotone; 5-7 notes; ... ^{ah-tōō} ... big? In
at least 2 areas forest; also higher similar calls (?). / Saw & heard cayari -
mulgide on road in eve; white throat, white underwing bar bar out. One call
whit curre. / CS heard bats over clearing, but saw none. / Whistly calls at
dusk in forest = teramou? Clear eve sky.

1 March 1978. Cold; 43°F at 0700. Clear. Traps 0 (brush & forest) exceptspec. for a large Perognathus ⁴⁶²⁰ in ESK mousetraps. Net took Empidonax fulvifrons;

photoed & released. Saw or quetzal in flight & perched; near road, 1/4 mi. N
of house. ES fairly sure saw ? near it first. / Joy-sized birds. uniform
dark rufous back flushed from 2" diam. hole in yellow clay vertical
bank at side road, 10' up. 1/2 hr later, flushed again. Nest? Furnace
id? / On ground in opened forest I saw 2 large olive-green finches? w.

Blood s. 3/2

"Solitaire"

(3/1 capt.) DNA sample (EJK), 3/2

Crude spec. no. no.

Gray, white eye r. Light large spot dorsal remiges (spread wing).

♀. (yest. ov. 1 mm. (enlarging?).

3/2 Catherin ? - DNA sample - CK spec. 4622.
(Capt. 3/1).

Journal

1 March 1978

Guatem.
No. Chilas co, Dpt. Baja Verapaz,

red-brown capr, black mask (white dots forehead?), white throat. / Found a
juv. mouse in room; put organs in ETOH; ESK #84 skin + sk. / EJ caught some
Sceloporus, saw Anolis. / Breeze today, day. 1300, EJ + Rodolfo drove

to Cobán. I put up second net, on bushy slope edge forest. Set 13 traps
[took big mouse] traps (+ EJ, one rat trap). Note took 2 ^{large} Sparrow ^(DNA sample - "sol. & nise" 2 March) seyed birds, ^{Cathartes? 4622} sawt dove. / Vedral

brought in a 6' green tree snake, tied to end of 10' pole (much audience as it removed
+ caught it). / Moved first net to open road at edge brush, where had seen ^{a few} lats.

[no catch] & coprimulgids. Clear calm night. / Also netted hummer 1630; ♀? [kind w.

white line behind eye & slightly curved black bill; brown chin + under, purple

gorget (brown edges feathers), rusty back around eyes on face, pink feet, black tail

v. gray tips outer 2 rectrices, grey belly + crissum; back + wing coverts green; remiges black.

Saw Aulacorhynchus - 1. Acorn woodpecker - 1 to 3 seen sev'l times on roads
1/4 mi. N. of house. / EJ + Rodolfo returned.

2 March 1978. Traps held 1 rat (EJ capt., CK #4621); nets 0. 0700-0800,
heard sev'l Trogon mexicanus (call all day), robins (kind?), Carpod. frontalis,
swifts (small, grey below, lightest on sides face; 5+) over forest slopes.

42° at 0630; light breeze, felt dry. / Yesterday morning, 2 howlers, Buteo-size,
were atop dead branches ^{1/2 mi.} 10. of house. / Set lower net on ridge road in

forest, edge road clearing. Put out 8 traps (ESK out 6) in opened forest. / The

= Furnaria? refour bird from road bank hole apparently gone. / Herberto Arlean arrived in
evening; offered use of ranch house to our group. / Had Net took Wilma walker.

3 March 1978. Mod. wind; clear, dry. 2 nets held 1 Carpodacus flaviventris. Traps
held one rat (like 4619, CK) & 1 Perognathus (EJN coll.; CK 4623). Saw one

swallow-tailed kite over town. Erik saw quetzals. He drew blood 2 birds, taken
yesterday, & I put skinned them. Released Carpodacus flaviventris from net (see over).

Walked in forested hills to E. where logging road. EJ photos open pulling
logs. I saw a dead voluptid ascending tree trunk; mod. size, streaked throat on

No. 3/3 A CK

ETK. ♂ - t. 3 long

3 March - Robin - bl. sample & disc. 9" long.

yellow orange mouth & tongue

dk. brown bill.

Brown iris

Dark fulv. br. back, wings, tail.

Brown legs.

Lighter brown underparts -
crimson light brown, feathers light on tips.

Netted - road in forest.

♂ T. grayi

Carpodacus flaviventris - released; from net.

Back olive.

Renniger's & rectr. gray, olive edges

Eye ring - yellow-white.

Throat, br., belly yellow -
(some white), crimson yellow.

Legs light gray; iris brown.

Bill brown upper, yell. lower.

W. lining yellow. 2 wing bars. yellow-tan

Journal

3
2

3 March 1978

5 Km NE Chilas co, Dpt. B. Veracruz, Guat.

10?

light background, bill slightly curved, 30+ mm, yellowish. 1/2 note out in eve, at former sites. ^{we} set 12 snap traps in opened forest on ridge. Wind died. Saw swallows & swifts, 10+, black w. white ventral lin, milling; mostly gliding & not typical swift flight. Tall clouds to W. in eve.

4

Sat.

52°F? (ESK notes).

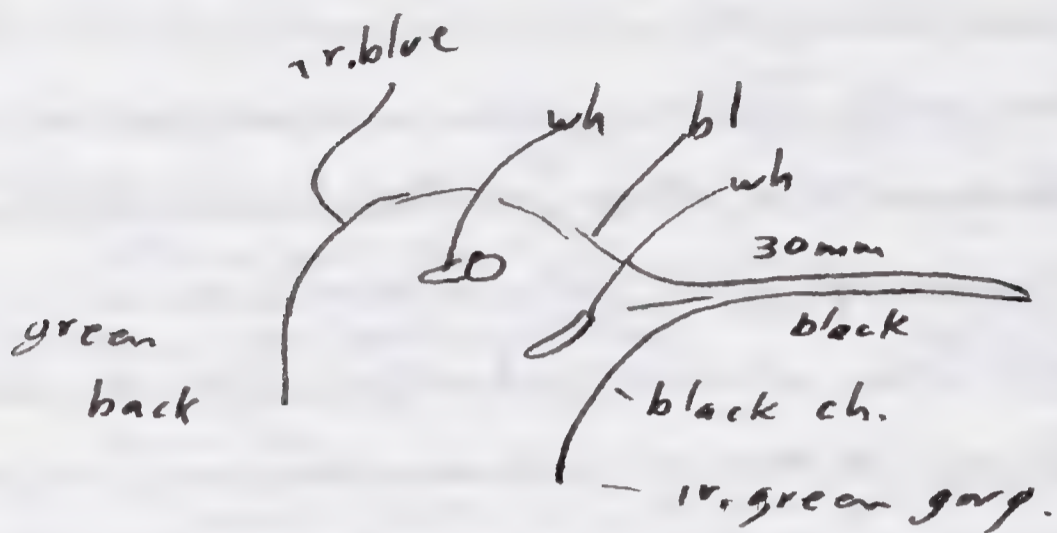
3 March 1978. Clear, calm. Net on brushy slope below trees held 2 lato, probably Sturnia (CK 4626, 4627), the none taken previous days here. Roadside net had olive green small "sparrow", w. black & white on head, white belly, as was common at Quisic. Escaped. / Saw T. mexicanus, collaris (ES. white collar), quetzal about 2000 m. also 3 pairs w. black faces, no casts, atop 100' tree. Empid. flaviv. & fulvif. too. Small parasite (go q) flew over. C.J. saw ^{chest light br.; back brown} small brown woodpecker w. white ^{supercil. & crown} ~~central back & top head~~. / We saw a securin 3 x, twice on ground; brown, w. grayish tail. Saw numerous spherulid acorns, 20 mm diam.; squirrel food? Yesterday saw didelphis tracks on road. Capt. small frog under moss dump on road. Saw black robin w. yellow bill & faint eyering; edge forest. / Took down nets & returned to house 0900. Calm warm day. / Saw 2 black vulture near house; later, 1 turkey w. / I walked to Chilas co, 40 min, for supplies. Saw Cassidix in vicinity (Humberto A. says "pigeon" too). / Clouds increased when left after midday. We put up 2 nets on road NE of house & set 14 traps. Sprinkled; thunder & lightning after dark.

5 March 1978 Sunday. Election day. Drizzly morning. Traps held 2

note of the common kind (CK 4629). Note held 1 lat, ⁴⁶³⁰ hummer w. white cheek stripes, saw black robin w. yellow bill & legs; + bill (a ^{collar} ~~collar~~ ~~collar~~), broad, of orange brown. Netted robin smaller, black feathers; yellow bill, feet, eye ring. Rain at night strong some traps; took (ES) lat (CK 46). Saw ^{sp.?} Aulycorhynchus; green, rufous cervinus, yellow max, black mandible; some yellow post. to eye. - eating 2.5 mm diam red-brown abundant fruit

10?

Common hummer - 3/5



belly - gr.
back - green.

♂ t. 2 mm.

rect. - ir. copper-gr. below.

tail - ir. black-green; no light tips

criss - gray, green tips

base legs - white.

Journal

5 March 1978.

5 km NE Chilasco, B. Verapaz, Guatemala.

on tree w 6" Blower. Saw 1 Scinner on ground. / We have been turning over logs, ^{brake ferns,} branches, etc. daily w/o finding lizards or salamanders there. One boy claims to have once found 20 rinco dormido w. Fina Miranda. / 0930, raining but bright. / 1100-3 hummers in net; one w. white Δ behind eye (see look prev. p.), one w. diagonal white line behind eye & rufous under area, one w. rufous wings & ^(brownish) lesser gorget (Koda). / EJ photod Quetzal; saw σ & ϕ , juv. in open trees above brush, 100 m. S. of house (craak-like calls). / Overcast continued all day, w. occasional light rain.

Took 2 of the rufous-winged hummers during day; photod; released. (Description in EJK notes). ² Nets & traps out eve. ¹⁴ Took 2 Barisia? + an anolis under fire-wood logs.

6 March 1978. Saw ^{overcast} ~~overcast~~. EJ traps held juv. mouse (like CK 4619) and juv. ^(σ 205-103, disc.)

Perognathus (in formal). / Released hummer (blue crown & throat, green gorget, green body, straight 20+ mm bill (red band $\frac{1}{3}$, black distally). / In net, small black-blue bird w. (CK σ 4632.)

rufous underparts, hooked-tip bill. Walked on house, searching logs, moss clumps, but no results. Visited site of Alouatta aurita catch last April. / We prepared specimens.

Rodolfo returned. Checked nets - almost 0 today, much less success than yesterday when drizzling. / In one 100' tree, saw 2 Antanorbys + 4 jays. / We took in nets 1 p.m. Rodolfo rode us to highway, 15 km. of rough road. Nearly dry at 5000'. At junction saw a Cataphaga, 2 Cathartes, swallow (Ptilodipteryx?).

Waited 2 hrs. - 2 buses past but jammed full. At good 75¢ comida at Comedor Cabañero, 1 km. walk to N. Got ride in huge truck to Mercedes finca, km 157, & stayed in Lerner's house as before. Had been much rain here.

7 March 1978. Out 0700. 60°F. Broken clouds. Mr. Lerner, brown warbler w. streaked breast, chestnut crown, white supercilious line, yellow throat & crown, on ground near house. Walked trail across road to E. Saw 4 Cathartes, 1 little egret. / At house feeding box, several hooded jays & a shiny black intimid. Saw flicker. EJ saw apparent Saltator. / About 1030, saw 2 flicker & hooded jays near house.

Journal

7 March 1978

5 km ESE Peralta, Dept. Baja Verapaz, Guatemala.

feed trough, & yellow oriole. We set up 2 nets in area; difficult because of horses. / Mon - 2/10 cumulus & breezy. / Visited Isarrity's again. John Campbell, who has collected here, is from Arlington, Texas; assoc. w. a museum in Houston. Should have specimens from here. They mentioned Cooper, Panajachel, who knew a lot about identity local mammals. / Returning to Llanos, crossed a fallow field & flushed dozens of small birds, which flew to larger shrubs & brush near the road, then across the road. One clearly a blue windigo brunting. / About 8 p.m., checked nets. One, 1/4 mi SW of house in open forest, held 2 Stenomys & one Dacrydactylus. At 10 a.m., no further catch. / We set 14 traps to NW of house within 400 m. / Lightning storm to N. in early night.

8 March 1978. 58° at 0700; 1/10 cloudy - one of better weather days. Traps held:

0 - bait cleared from tumbler (by ants?). No catch in nets. / Yesterday, 1130, EJS saw a snake in trail near horse feed trough; it slithered fast into nearby cover; at 1330, I saw apparently same about 10' from spot; again went fast into cover. Appeared 10" long, gray w. dark saddle marks; Bothrops? 0830, I returned to house to prep. bats. / Set traps & put out 2 nets.

9 March 1978. Thurs. Traps held 0; none (8) by creek near ^{Guisepto} Sanagaita.

One net held an Artibeus, small (EJK catching). Prepared to go to barometer. Bus very late; arrived evening. Phoned Mario. Bus was stopped twice by ~~10~~ 12 Mar military on way in and we were searched - election aftermath?

10 March 1978. 0830, at Dany's office. Talked on bus w. him. He thinks protection of area is first priority. Has contract to develop some area on Pacific lowlands. Says he has had about 50 requests this year from people who want to do research or collecting projects; some are experienced people from Friends World College or Peace Corps. So, not really much interested in my proposal, or in collecting in general. He was reluctant to talk about Bobby Dorris, or to

The first part of the paper discusses the importance of maintaining accurate records of all transactions. It is essential for the business to have a clear and concise record of all income and expenses. This will help in the preparation of the tax return and in the event of an audit. The second part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The third part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The fourth part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The fifth part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The sixth part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The seventh part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The eighth part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The ninth part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit. The tenth part of the paper discusses the importance of keeping the books up to date. This will help in the preparation of the tax return and in the event of an audit.

Tawad

10 March 1978.

Guatemala City

arrange for me a meeting with him. / I went to El Solto's office on 6th floor of Maya Bldg., next to Hotel Conquistador; immediately was let into Dorris's office. Tall, informal, + spoke only English to me. He was pessimistic + gloomy about prospects for support or funds from U.S. Military govt. Gov't values recently struck + got huge salary increase from lame-duck president. Banks in trouble. He suggested I go to Co Cultural attaché at U.S. Embassy for information on prospects. Sugar business in trouble - unionization, + unable to raise prices. All discouraging to me, tho he was sympathetic, + we talked about 3/4 hr. I went to INATEC and got my collecting permit. ESTO agreed to investigate shipping of animals + permits required. / Shopped for food, then took 1630 bus toward Coban. Arrived ^{Km. 157} ~~Lanun~~ ^{Lanun} around 2130. /

(2 March)

Yesterday, released hummingbird from net - green back, white line diagonally down behind eye + whitish chin; have seen here before. Saw warbler w. 2 wing bars, brown above, brown line thru eye, blue crown; yellow ventrally. / Saw gr. 30+ little egrets fly over near house. Unicla jay - not seen recently. / Looking E. from Lanun house, slopes of Co. Verde cleared 20 to 6070 m in irregular lines, with crops or fallow fields in clearings. ^{1600m.} Quisis, Bajal Verapaz

11 March 1978. Clear, calm. Walked 1 hr. Only one bird seen was

flock 50+ Sporophila tegula in fallow corn field; ♂ and ♀♀. / Prepared to depart for El Estero. Took bus at 1530 for San Juan (25¢). Beyond Peculha, flat valley bottom cultivated + grazed, w. slopes cleared to top to N. Cassidy prominent in fields. / Awaited another bus, which descended to Tawahui + Tecun, last about 1500'. ^(75¢)

Big Ostrya + nests about 2100', + yellow flowered Bambusa sp. by road. River on S. aspect slopes. Stayed in T. Good little hotel

Esperanza Hernandez -

U.S.C. - museum - curator

Journal

11 March 1978

no garden; ^{\$}1.75 for 3 bed room. Eve - ^{horne} ~~house~~ flew over on goss 1-4; seemed uniform light gray in dusk. Exp. 30⁺ martins? rickling; glided mostly; wings ^{narrow} ~~translucent~~ near body. Corvids & smaller black interd (Quercus?) in town. Road ingrassia. Threw nuts in store; men say fish for vogaria & other sp. in rivers w. there.

12 March 1978. Sunday. We had heard of Domingo Tomas ranch, Feria

Chapel, on road N. of Tucuru. Left gear in town & walked about 2 km down road to side road to Feria San Esperanza. Cileon, huge legume tree (Epilobium?), along road. Fast river, 5-10 m. wide. Started up past F. San Francisco; coffee bushes in flower & a beneficio. Rocky road up. Soon saw Oryzodolus; about 40 nests in one large open tree (abandoned). Saw Catopoda in trees. Saw large Monstera in citrus(?) tree by road. Brown quevedos. Brown jays noisy. Saw 3 small-tailed lutes in air over steep slope. Apparent coral snake in road bank, rocky about 2000'. Centurus aurifrons. Spr of gallito tree in orange flower. In about 2 hr. slow hike up, to about 2700', came to Feria Esperanza headquarters, gardens, birdhouse, flowers, humming birds. Talbot v. admonestador - Herrera (sp.?). Seemed friendly & hospitable to return visit. Planted Eucalyptus, some off-fuzzily red flowered kind. Top of one E. had about 6 Icterus galbula, ♂ & ♀. Pteropus sulphuratus in garden. Many Osteops flying about, noisily. Amazilia - rufous tail; red bill w. black tip. Forest line about 200' vertically above, to SW. Citrus fruits & coffee bushes (in flower). Icterus mesomelas. A large jay w. black head (Cissilopha m.?). Apparent wood thrush in citrus orchard intergrowth (round distinct breast spots; white eye ring).

Nr. Constancia -

Fca San Julian - 300 m.

Uolomjix - 900 m?

Rio Porvenir + E.

Nr. Co. Raton?

Jaerua

12 March 1978.

Ar. Tucuru, Alto Verepar

Again talked w. administrator. Apparently road, tho crude, can be traveled to Rio Panama and on to Pereira; possible to 2-3 wine trees in this season. / We walked down to highway in $1\frac{1}{4}$ hrs. Then Hensch-Bates - like; sh. blue gray body; white legs tail + 1" black subterminal band. to Tucuru. Waited from 3-5 pm. for bus. Then down river to Telemar, arriving long after dark. We camped in football field. Dogs & their leader continued all night; many roosters crow in morning; somewhat mosquitoey, but no people bothered us. Overcast.

13 March 1978. Damp, w. low morning mist. Left gear in bakery. Took truck to Fina Custodia (5th ex); river bridge narrow & narrow but passable. Met 3 Proye-Belbana brothers; slim young men w. coffee finca, at least 5 cabelleros; hillside fairly protected from cutting, the coffee in much of it. Klaus D. was a butterfly collector; collector in Peru; knew little of classification. We took walk for 2 hrs. in the hill forest, from about 100' to 1000' elev. Saw & heard many birds, Trogon violaceus. Big toucan (Rhamphastos s.?). Parrots. Formicariae. Some large palms w. clusters of fruit. Said to be hate in one palm tree. Say vampire would horses. Say a puma taking chicken & dogs on neighboring finca Mercedes recently. Say no jaguar now; owl in mountains. Formerly many ries de rode (Chirajou?). Maybe rare. Say a gray ries on N. side of valley. We saw several Basiliscus, & ocoo. Ameiva-type on Aratinga near trail. One say that road goes into mts. to about 1000m, up to Panama + to Tolon ix the 2 hrs. invited us to lunch in house. Amenable to visit w. students. Interested in wildlife tho little formal knowledge of it. Had H. Land's book, B. of G., & said very uncomplete for their area. Butterflies most abundant in wet season (K. said; he has none

Journal

Guat.

13 March 1978.

Nr. Telemán, Dnt. Alta Verapaz,

land retr. They have 1 acre field pond w. Tilapia, carp, + gambusia. The thick some escape to river. We saw fish in pond to about 2 lbs. wt. Hundreds of sweet grapefruit falling + rotting. Some coffee now being dried in yard; the species grown here flowers + seeds at same time, year around (robusta?). Lemon-grass grows in fields or citrinella crops. | Returning to Telemán, we saw a Clarus lucorum hovering over flat cornfields, + many Valentia among bushes + corn stalks. | Klam here 9 years.

Brother Hugo. / Hot day. Waited for bus from 3-5 p.m. Bus to El Estero (1.25 each), arriving 1930. To Los Pantes Id; ^{another dry day.} some mail from there.

14 March 1978.

Los Pantes, El Estero, Dnt. / Zebal, Guatemala.

Spent morning writing letters + notes. Clear + warm hazy day. Prepared specimens for travel.

15 March 1978. Took 0630 public ferry (150) for Mericor in light rain. Bus to highway (50¢). Then bus to W. I disembarked at El Rancho, Cike went to Guatemala. I took bus to Quiché to get shells + leave gear; then took bus to Guat. city + joined Cike at Chet Buzja.

16 March 1978. To Botanical Garden where arranged specimens. Took about 100, listed, to Izofer, where I got a permit to export (typed on sealed paper). Cike to Dept. Agric. + San. in Aurora Plk. and got export permit for snake + toad, and for 15 epiphytic plants. Stayed Chet Buzja.

17 March 1978. Took 0445 bus, Fronteriza, for Talsman. Stopped in various towns; arrived about noon. (Charged us \$5; but others about \$3!). Charged us \$1.50 for Mex. tourist card. Inspected baggage - some conferring about my packed specimens, but signed Guatemalan export permit as "revisado." Crowded today, before Semana Santa. Took very crowded bus to Tapachula. Charged \$ to person. 1st. class Crist. Colon had no space for 2

Good record →
5 +
eye

Journal

Chaparral

17 March 1978.

Tapachula to N., Mexico

days, so took second class (\$12) at 2 p.m. Through lowlands along coast. Saw several fences, as if for land clearing. ~~to~~ Forest on mountains to W., & large clads. Few stops, tho visited small towns. Stopped at Juchitan for dinner, after dark. Then on through night.

18 March 1978. Arrived Mexico City about 1 p.m., near subway station on

Garroza. Hiked east to an aeropuerto station & took trolley (3¢) to airport. Crowded, & no plane space with today. So checked most gear in lockers (75¢ for 24 hrs, large) & took trolley & metro into city. Stayed at Isabela Catolín; \$3.50 ea. for single w/o bath. Walked in city & got reservation on plane with tomorrow. Hard rain & cold.

19 March 1978. Sunday. Walked around mr. San Juan market. Then metro

to Merced, fantastic produce market. Walked a few blocks S. to M. de los Baileños, where pots, baskets, & so on. Birds - in cages, grasshoppers, dickcissels, buntings, cardinals, solitaires, & others. Then metro & trolley to airport. About 3:30, WA to Los Angeles. No problems w. customs & agriculture; our Guate. papers helped, but inspection casual on Sunday. Agricultural man refused to look at live green snake and black toad. Plane to San Francisco, where Sue met us. Specimens. CBK 4611-4630 to MVZ. Also EJK specimens.

3/6 a.m.

Diris. juv. - mass like 4619.

t. 1.205 t. 103 juv. ♂.

Journal
(Guatemala trip)

8 April 1978

To Mexico

Departed 9 p.m. on TWA for Los Angeles w. wife Susanne and son Erik w. 165 lbs. gear + carry on luggage. Took night flight of Mexicana for Mexico City,
9 April 1978. where arrived 0530. Quite thru customs w/o unpacking; had to carry
eggs. to Mexicana desk, about 200 yds. Took 0800 flight to San Guatemala,
where arrived 0930. Minimal inspection again. Rented a VW Beetle from
National Car Rental + drove to Quiché, ^{156 km near Quiché} where met Bernardo Lemus, owner of ranch. Very
jolly + friendly, + offered me of 2 rooms. We walked usual trails. Saw in evening apparent
chachalaca? descending among trees w. descending rattling call. I set 5 live + 5 snap
traps in and near ^{green} grasslands to E. of road; Erik set a to W. of road. We slept in house.

10 April 1978. We drove to Punalba and Tactic for supplies; later good. Returned
to Quiché. Visited the Univ. San Carlos house at Curve of Quetzal; now a table + 8 benches
there, + 2 km. of carefully graded trail upslope into forest. In late afternoon
drove up to Chilasco and Fernán San Jorge. Still logging near there, + fairly dry
lately. Erik + I put out one net. Slept in house. Mr. Chilasco, Dept. Baja Verapaz

11 April 1978. Set up camp in old house frame ^{200 m.} to S. of San Jorge house. Drove to
Chilasco and on to Santa Cruz canal, where a line of cypress trees. We saw + seen-
tailed bites flying in gp. near Chilasco; another two near canal. Near San Jorge, I
saw black robin w. orange bill. Erik flushed brown bird from roadside hole, same
as in March. Heard trogon calls frequently. Walked 1 mile road circuit w. fence.
Helped Erik set traps + second mist net. Slept in tent; some rain at night.

12 April 1978. I departed about 0200 + drove to Guatemala. Shopped. Changed to
VW panel car. Visited Mario Dary, + Trofa's office. Met 3 UREP helpers at air-
port about 5 p.m.; Bill Disher, Marsha Hunt, Ted Parrall. We drove in VW to El Rancho
and on to F. San Jorge in night. Saw 2 caprimulgids on road up, + on road
down. About 3 a.m. on highway to N. of La Cumbre I saw a large Crotalus, which
I killed and skinned. Arrived back at 1130 p.m. Family said it had rained early a.m.,
+ that saw group 9 quetzals in day near camp.

14 eve - Arrows. + 2 stem.
Cropid. - net. 1 arch? stem?
Robin - released.

15
Camped fl. - long.
Ker Comm. - stem

Journal

13 April 1978.

Nr. Chilasco, Dist. Bijo Verapaz, Guatemala.

We set up mist nets and put out snap & live traps. Rain ^{early morning} & night. Observed birds. Searched for lizards. Rain evening.

14 April 1978. Saw many species arrived brought in, so busy with specimens. A M. Hunt saw *Xanthocephalus calliopterus*, killed flycatcher.

workman cut his foot; Erik drove him halfway down to highway. Rodolfo arrived, & kept ^{Described a} *Wilsonia* sp. & 2 *Carpodacus frontalis*.
us up in evening w. talk & beer. No rain at night. Released a *Turdus grayi* (Bill D.)
5 ab.

15 April 1978. Checked traps & nets. Then departed 1030 & all 6 drove to Puerin ranch.

Saw ^{Groocox} roadrunner in pine & brush area on road down from Chilasco, about 5 km.

Visited Univ. San Carlos courts; Mario ^{Danny} there today, & we talked w. him. Drove to Totul for supplies. Then back to Chilasco. Stopped at Concedida ^{Cl} Cobanero for rice lunch. We checked nets & set out traps. No rain. Saw *Carpodacus frontalis*.

16 April 1978. Foggy morning. Prepared specimens. Two species *Atlapetes* taken, a *brunneica* in a snap trap (50x). Some of us went for hike w. Rodolfo, ^{and} gun, but no take. Driest day yet; breeze & cumulus clouds. Walked dirt road SE of house for a mile, into forest. Set 17 traps, several near stream. But no wind & seeds, & mouse bodies, out to see if taken. Heard and saw at least 5 *quitze*, calling, moving from tree to tree in loose brush, some ♂♂. Possibly several more. In evening heard usual owl but could not see it; spent an hour on trails w. gun after 8pm but saw no eyeshine, not even ^{frogs}. 1/2 moon & nearly clear. Warm eve.

17 April 1978. Clear sunny morning. My traps held 3 big *Peromyscus* of common kind. One steel trap sprung (by mouse?). Baits in open not eaten. Saw *Colaptes*, jay, *Carpodacus frontalis*, lined woodpecker ♂ & ♀ (noisy; chit-chit-chittle), on trunk 100' living tree in opened forest. Possibly a *Phloeoscoptes* ♂ too. Brown & reddish-brown bird flew from 3" diam. hole in roadside bank; about 10 a.m. I set a mousetrap in hole. Others have ^(flushed birds from) ^{holes} found similar bird holes in other roadbanks, but so far have not identified inhabitants. Erik spent 2 hrs. showing 3 UREP volunteers how to skin mice. I walked back to my trap area w. shotgun about 0930 but found

Journal

1900 m.

17 April 1978

Nr. Chilasco, Dpto. Baja Verapaz, Guatemala

forest very quiet. Flycatchers most conspicuous birds. / Others had fair trap success, bringing in several large Peromyscus, a smaller P., two Reithrod. a Turdus grayi netted & released. Another, ♂ t. 12x9, 80 gms. / Netted & released Lamprolaima anthracina + Lamprolaima ^{rhani} ~~rhani~~ ♂. / We took about 10 of the big fluffy chested Peromyscus today, mostly juveniles. Taster large, 9x15, on same ♂ 66 gms. or +. ♀ 68 gms. + 50 gms had inactive reprod. tracts & imperfect vaginae. / Clear & dry all day. A ^{unknown} Alouatta brought in from area where felling trees. (E & K catch) / Sue, Jed, & Marcha walked to Chilasco in mid-afternoon. Reported fresh in stream there; at ford to Finca Miranda. / Hunted v. lights in evening for frogs, mammals, but no luck. 1/2 moon, clear eve.

No rain; foggy. Nets took 1 Stenomys (spec.). Traps, 1 Reithrodontomys (spec.)
 18 April 1978. Walked road SE of camp 3/4 mile. Saw Cyanolypia sumichrasti (white line over eye) (Cik saw same previous day), 2. Saw 3 green ^(Aulacophrynus) Toucanetes at once; croaking calls; in tops tall trees, spaced. Big woodpeckers. Flickers. Redstart. A Turdus ^{magister pitier} infuscatus ^{all brown.} negre (bill & legs yellow; not eye or eye ring). Saw an Antrozous (rubiginosa?) with dry grass in bill, chirping much by side trail; hole in bank on opposite side. Later, on shady road to NE camp 1/2 mile, saw an antshrike w. long yellowish legs, brown all over, darkest on crown; mod. short tail; walked on logs across trail; allowed approach to 10'. / Cik & Bill Disher pulled apart branch and took 7 salamanders! We packed up, and departed about 2:30 p.m. from Finca San Jorge for Chilasco in van panel. Stopped briefly. Then took dirt road E across creek & toward Finca Miranda. Road rough but passable in dry weather, very dusty in spots. Passed Liquid- ^{mostly} amber trees, small pines, burnt hillside. Occasional forks to side. about 8 km up, 6000; in 1/2 mile wide bottom of valley, w. clear 2 m wide stream, elm trees along stream, but most flat of Barbieria to 10' high. Slopes w. brush & occ. 50' pines, and thickets of 10-20 ft. pines. Large patches burnt, & some planted to beans & corn, the spaced plants now about 8" tall. Some boggy spots w. thick grass near meandering streamlet. Cloud forest on higher slopes to E and SE, about 1 mile

Journal

18 April 1978.

0 Km ESE Chilacay, Dept. Baja Verapaz, ^{6000'}Guatemala.

away + 500' above river level. Some smoke from among river. Saw long-tailed grackles; heard thrasher. Saw small swift sp. (10+), + sp. martens (? - glide much; wings narrowed near body). At times road invisible in grass. Camped at 1630 near stream. Set out 2 nets. I put 2 trap traps near stream, grass, bushes; Marcha + fed put others. Erik turned over 6' log in grass 5 m. from creek + found a small salamander! Much calling of Nyctidromus on into the night. Clear, + 5/8 moon.

19 April 1978. Dazy night + dense wet fog in morning, but soon rose. Nets held 0 (we saw a head no bats evening). Only trap catch was 1 Leithodentomys (CK spec.) ^{no. 4671}

Heavy white clouds + warm. Hue + I stayed at camp. The + others hiked ESE up to cloud forest to look for salamanders in bromeliads. Road part way up, but uncertain quality. (In walk last eve up trail + road, I saw fox (?) scats at several points. Heard ^{one} toad a frog in night, but saw none w. light.) Strong down shower including apparent Ortalis, but many other birds too. Got, after fog cleared I saw few. Hue picked blackberries + made jam. I turned over logs here + there; saw a shrike under one. Saw on 2" lizard with rufous flat crown + black stripe on side in thick damp grass. I found a few dozen bromeliads in elm trees in a group by stream. Pulled down many + examined for salamanders. Found 12+ in 2 hours. None over 10' above ground. One on ground. Some small, about 10" tall. At least 3 in one plant. About 3pm Erik + others returned from cloud forest. They had taken 12 or + salamanders ^{in bromeliads}, + 2 frogs in bromeliads. A misty warm calm day, but not overly hot. We again visited the local bromeliads + took another salamander. Hue found Leithodentomys + a shelled ^{grass} nest in a rotting log in burned field. No catch in 2 nets all day. A few fluffy clouds in eve. A local man told us we were at San Antonio, + that Ferns Miranda was 2 canyons to northward. Biting gnats in evening. About 8pm. I walked for 3/4 hr. w. light, including elm clumps + swampy zone, but saw no ajacine. Heard a frog (scaphiopus under) in stream. Calm. 7 moon eve.

Journal

20 April 1978

San Antonio to nr. Peralta, Dept. Baja Verapaz, Guat.

Crick & Bill took about 6 more salamanders from elm clumps. Crick reported seeing at least 3 Turdus ^(sp.?) rufigularis in flight. Heard & saw Caridix. Morning chorus of Ortalis in fog. Steamy scattered clouds. No catch in snap traps by Jed & Marsha. Two Ceprenomyces taken in streamside net. Heard much calling previous evening, early to late. Birds in brush & ~~and many~~ and not noted on trails or roads. Codense of call like: la-l - white. Cyathus white. / Prepared to depart for Chilans. Droppings of fox size on trail; apparently eaten fruit, black. / Departed & drove to Chilans. ^{many} Sceloporus on fence of stilts (& trees) in town. Discarded three pine oak gone to highway. About 3 side roads to S. area of Monte Reis, about 5300; may be good for canyons. / On to Purico & Quetzal Biotropes, where set snap traps to E. of road & stayed for night. Cool by 1530. Lázaro Chigüin in charge but several workmen here. Est. 4700' elev. I set 25 snap traps; Marsha & Jed set others, across road E. of reserve; Bill & Crick set others & cut brush (look for salamanders) beyond N. boundary. / Collected about 1 line use trail; graded switchback, much of it gravel. Varied vegetation but little sign birds or mammals. Saw Anolis. Returned to palm-thatched house; now has 8 bunkers w. mattresses. Brief rain shower. After dark, I looked for frogs w. light & got one w. white large spot on thigh; it was on lily-like leaves 3' above stream water. Heard tree frogs but saw none. / 5 p.m. - saw w. white dorsal collar; slightly forked tail = Stenopoma? / 10 swifts; black

21 April 1978. Friday. Smoky haze, calm. 0600, saw flash 12± small parrots fly over.

Two traps in house took 2 most sized Peromyscus. Snap traps took 3 large & 2 mod. Peromyscus. Prepared specimens; left 2 birds Peromyscus in front for Norio. Crick & some others hiked up trail 700' elev., but it did not reach summit & no trail beyond. We talked Lázaro Chigüin about roads & animals. Then departed 1 pm for Tactic. Saw gr. 10± black vultures on flood plain before Tactic, & 10± cattle egrets. From Tactic to San Juan, where started down dirt road to Bencha. Before S; saw Barbary nets hanging from tree over road, w. birds visiting them. Near well built wall & fence on N. side road. Saw other rosalia gr. as descended

Journal

21 April 1978

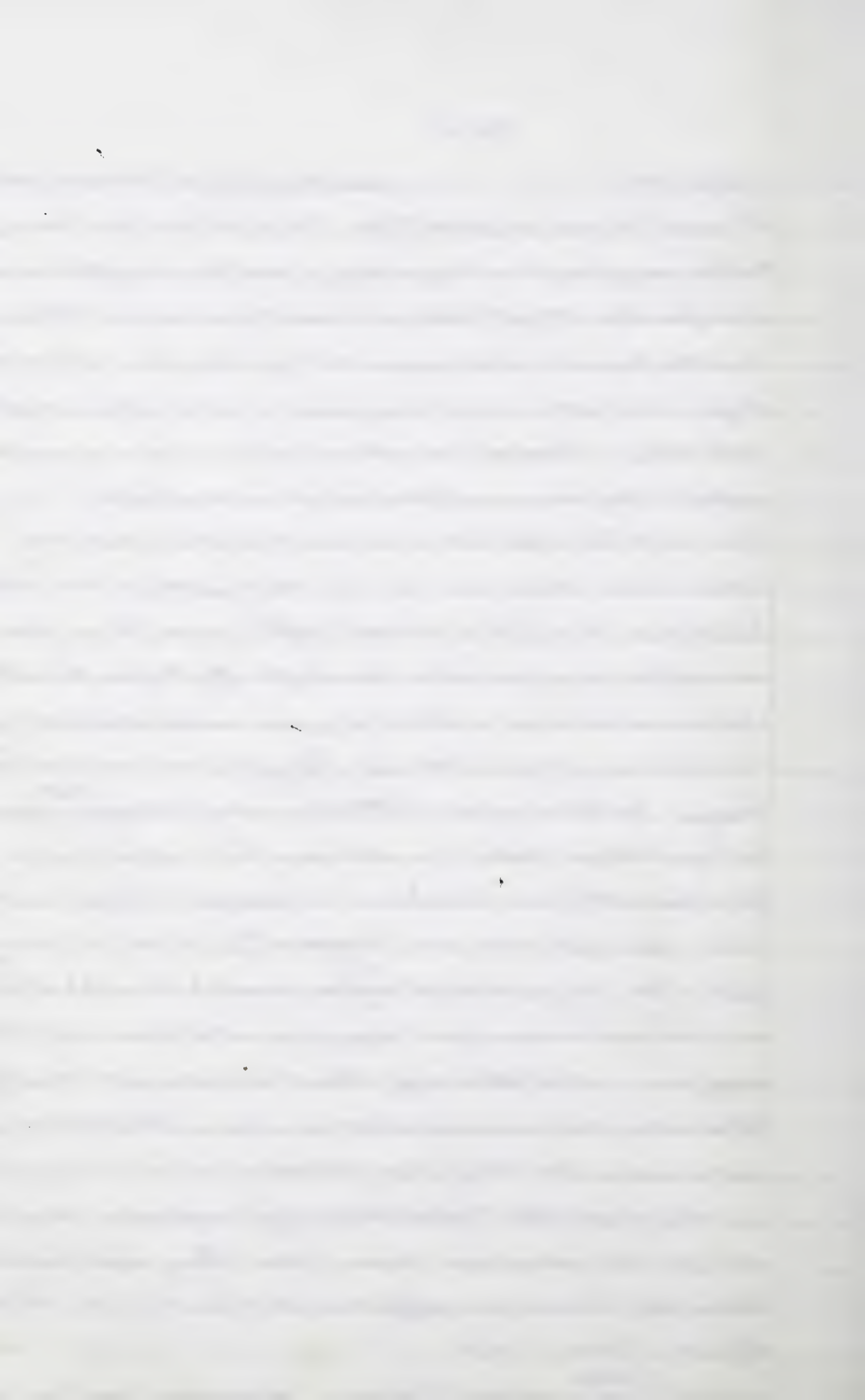
Upper Bloch's Valley, Dept. Alta Verapaz, Guatemala.

to Tzucuni. Here side roads, probably to finca. Continued about 3 km. below Tzucuni, then took side road up 4 km. to Finca Esperanza, about 900 m. In coffee bushes on lower finca I saw Atlapetes (darky finca). Arrived at finca near dark. Talked w. Almirante, Herrera. Camped on lawn near water trough, w. bare rooms + bath available alongside. Rain at night; increased to heavy rain + continued a few hours. We all moved into house. Cicadas - loud continuous sound as we came up road; they are about 3" long. Saw no concentrated insects at incandescent lights.

22 April 1978. Rain stopped but overcast, gradually brightening about 0900.

We took orientated walks on road. Saw two colonies of wogleri, w. birds nesting. Looked at banana trunks for lerp. Also looked in coffee tree nursery. Herrera showed us several bats hanging from joists in basement of the coffee "beneficio". He had about 6 kinds small snakes and a whitish 8" salamander preserved in alcohol; all from here. He said many catingas in hills nearby, tytozintles across valley to N. Many terrapins here. Not seen micolom (^{hinkajon}), or monkeys. But mapaches, ^{resaca} gorras. Said "tigre" killed across Bloch's a few months ago. He had captive Odocoileus fawn from another finca. I see + I saw: 2 Dicrocoelium on trail, Davis second, 2 avis, Tearis alivoda at close range, a Myadestes w. ^{any} grass in hill. Heard many Ortalis in hills. Tall forest started about 400' ^{above} above houses to S. I pulled down banana leaves near houses and found 7 salamanders in about 2 hrs., some + 'above ground, some in water at bottom. Wiggly + active. Also took a thin snake (ESK catalog). Not took nothing. About 6 p.m. searched about 5 more banana stalks + took 4 more small salamanders (ESK catalog). In eve, Chris + Bill put mist net in beneficio's basement + took about 6 bats. They also took toads, frogs, + a salamander (on damp wall); earlier, they took 4 salamanders in banana trunks. / Strong winds shores late in day. Herrera says roperodora are a pest + he will cut down shrubs they nest in. No rain at night.

^{Sunday.}
23 April. No rain + mod dew. Calm morning. Prep. specimens. Sweep traps took



Journal

Geobc.

23 April 1978

Finca La Esperanza, 3 1/2 km SE. Tucum, Dept. Alta Verapaz.

Zeros & zeros in net. In 15 min, I took 4 more small salamanders (Yesterday, I saw a Bombus near banana. Also we took a few Anolis). / Erik & Bill took one more bat in net under beneficis / I saw & I moved the one mist net to edge orange grove. / Departed 11:30 & investigated trails up ridge to S. Stopped to pull banana leaves & took about 10 salamanders there eventually. On up fair trail to about 1000 m, where a formerly road-wide trail headed SE. Mostly ^{ground} brush around it, but side trail led to oaks about 30' high (many had been cut; 4" diam.). I found only one Bro-
melid; that on ground, leaves 16"; found one small salamander in it. / Later returned downhill. Saw a few Atlapetes (olive green backs & tails) in orange & coffee. Oreopelta conspicuous. Saw Amphispiza puffens at edge orange grove. Put up second mist net there. / Erik & Bill had taken over 20 small sala-
manders in banana trunk leaves today. / In morning, I netted a Hylocichla; ^{Wood Thrush? Summer?}
Erik drew blood; body disappeared (cat?). / Saw Net among orange trees (no fruit
= Rondani venia / Cat got it! /
saw) took a black-throated green warbler in evening. / Cat got one large Peromyscus sp. from car. / Net in beneficis banana took 2 Blomphila (50% cat dog) in evening. Bill & Erik saw a Philander near water hole, & bats flying over road to W. of the beneficis. / Lightning evening, & short rain showers at night. Heard no scrimulphids, but heard pygmy owl several times, & Erik says has seen three. Also he says saw hutton hawk, perhaps red-tailed hawk.

(4679 C131C)

24 April 1978. Nearly clear & cool morning. One warbler in the 2 nets, & several large beetles. Bat net took no additional. / Erik & Bill went down to lower beneficis & searched pulp for sciliana; no luck. They saw a crucian collared tanager there. / Net took Myiarchus tuberculifer; released. Also an Amazilia cyano-
cephala ♂, t. 1 mm. / Mersha Hunt found a Pitangus ♂: nest in bulletthorn acacia tree about 100' from gp. several Geothlypis w. nests (^{latter} w. eggs, & w. young). We photoed nest; observed adult Pitangus. Rufous brown back & tail, black crown w. yellow spot. We also saw apparent Cortoporus sericeus flycatching from a stick

Journal

24 April 1978.

[Rio Polochic area] Guate.
Finca La Esperanza, Depto. Alta Verapaz,

10' above ground in meadow on hillside / Warm humid day w. little breeze. We prepared to break camp. / Erik & Bill took some salamanders this morning. / We departed about 2 p.m. & slowly descended to Polochic bottom. about 2 hrs., Erik collected some fish from tributary. On down valley lived w. living fences, occasional large Cecropia a legume tree. Hot & muggy. La Tinta letter & dirty Telenor cleaner, getting ready for a fiesta. Shopped for food. Drove S, across narrow suspension bridge & narrow log bridge, to Finca La Esperanza, where talked w. Hugo Dreyer. Drove away now. He gave permission to camp near house & use bathroom. He had been here 25 years. Formerly many macaws; now none. / We camped on grass near house. Hot & muggy, but no rain. Dreyer said rain usually starts 24 April!

25 April 1978. Warm & muggy. A nice cleaning building 200 yds. from house, & a muddy pond w. pigs & ducks 1/4 mile to NE. Stream from S. ^{very} low now.

Walked trail to S. of house for 2 hrs. w. Sue & Marsha. We saw about 5 Tityra, Cannysphryx (^{zonatus} ~~uniformis~~ 2) (tricolor) large cacti were in tree, yellow ~~throat~~ in tall grass, Kalopsis jae too; large & small black-capped swifts, black-throated green warbler, Arenaria sparrow, 2 parrots flew over house, groove-billed ani (forest edges), Centurus (aurifrons? - tree, & digging tree hole), Nyctidromus (nest w. 2 downy young in trail, adult distraction display; white bar across wings 1/3 from tip), & Common egret near pond, boat-t. grackles. Pigeon calls - single hloop note. Erik group saw toucans, citreoline trogon, wood creepers. I heard apparent Cryptotriton tenebrosus call twice. / Apparent Basileuterus seen briefly several times on ground in brush. / We saw several large & small toads near road when arriving last night. / Beyer put up mist net by Tilapia pool; & put one by small stream. About 30 snap traps set, 10 by me. Saw ^{1 1/2 ft} Basileuterus on log near stream. / About 6 p.m., setting traps in hills to

Birds

Journal

25 April 1978.

3 km. S. of Telamon, Albarrero, Guatemala.

S. of house, saw Amazona parrot, Ramphastos s. toucan, Phaeocastor? woodpecker. / Evening - several bats taken (ESK catalog) near pond. / Sue + I walked 1 km up trail + camped in cleared area of new coffee planting. Heard Cypselurus over in dark.

26 April 1978. Rain commenced about 0600 + continued 1 hr. or so. We retreated to ranch house. About 0900, picked up traps. I took one mouse (074600 CCK) in 10 traps. Boys took none. They saw large Iguana on tree near coffee pulp. / Took walk up trail to S.E. Flushed a Nyctidromus from two brown (cane s. leaf) eggs at edge trail; white feathers in tail + white band across wings; no overt injury feigning. / In trees saw kingbirds (T. tyrannus? (white tips tail + crown color not seen) T. ~~tyrannus~~), about 5 or 6 or of family; dark gray upper parts, white below including throat. / A Turdus grayi (yellow green bill, brown iris) had large testes (10 x 6 mm.); dark brown, not olivaceous. / Saw 1 Cathartes. / Yesterday, Marsha H. saw a jaivora at close range. Today, ^{she saw} apparent Myiozetetes. / Overcast day w. light breeze. / Sue + I visited pig pond 1/4 mi. E. of house. Flushed small red-brown rail from thick grass. Saw Amer. Egret, Green Heron there. Tropical kingbird, chickadee, Centurus anifrons. / Later up canyon to S. of house near stream, coffee, bananas. Amazilia (dusky red-brown back) trees had cherry-sized brown fruits + frequent bird visitors including Baltimore Oriole. Marsha H. had seen other birds there, the jaivora over stream nearby. / Brown jays heard or seen nearly everywhere in + near woods. Ducula in open woods + near houses. /

We set up 2 mist nets near Tilapia pond. One took a Chloroceryle americana apparent ♀; relaxed. Also a blue hunting (apparent ad. ♂; fine plumage; darker blue on crown + black around eyes); ^{relaxed.} In evening, nets took a Stelophaga + an Artibeus bat. Later, another Artibeus + large free-tail. (In morning, 2 more big Artibeus (literatus?) and a red-brown (Sturnia?) - bats in ESK catalog.

26 April 1978. Marsha + Jed had camped in hills to S.E. I took up 22 traps in dense woods but no catch; 1 km. up trail to S.E. of house. / Observed birds along trail; 4 crax in Amazilia tops; later, 4 Picurus parrots?

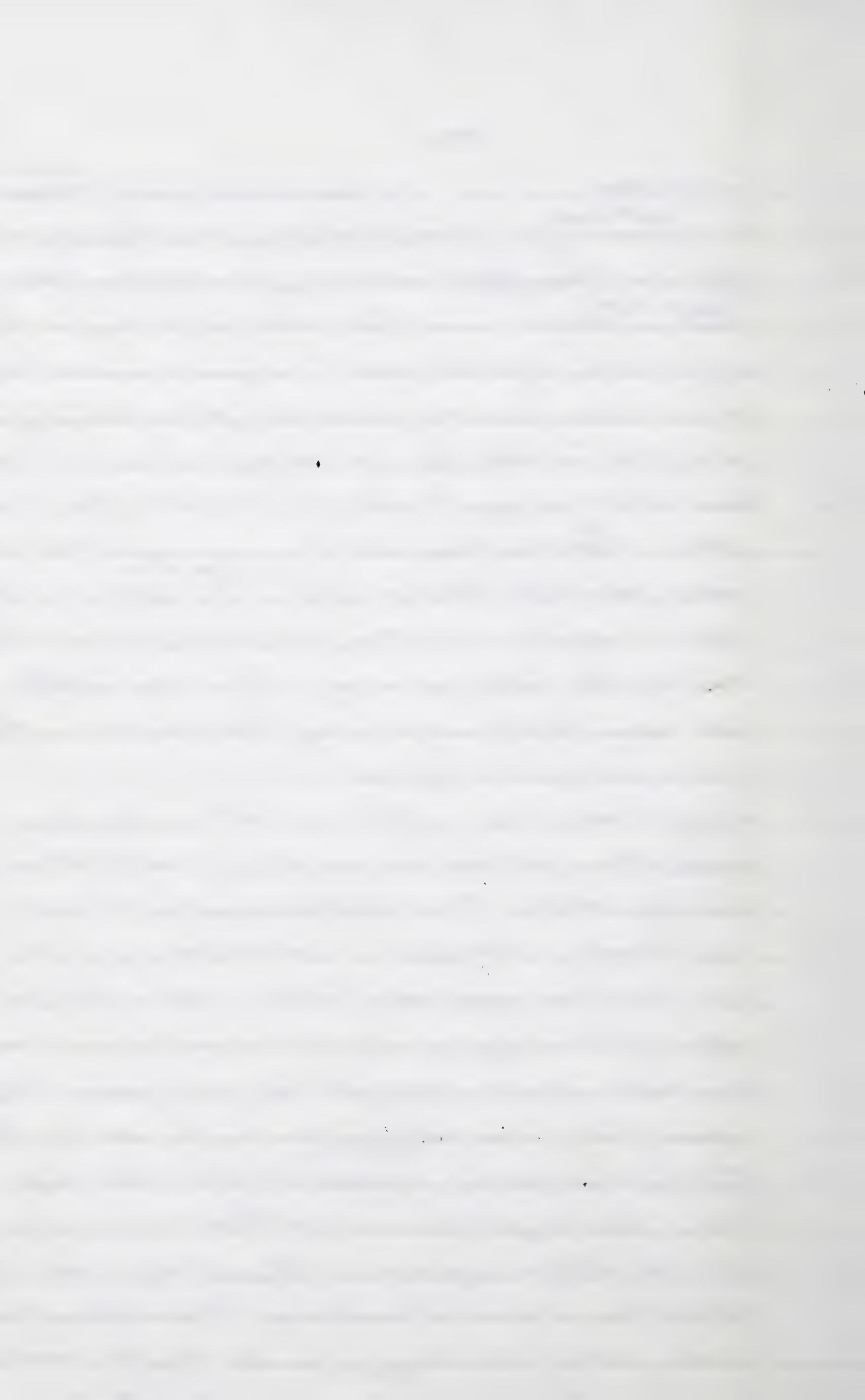
Journal

26 April 1978.

Guatemala.
Fca. - Constanza, 3 km S. Talamon, Dept. Alta Verapaz,

there (white crane in front). Yellow warblers feeding Cecropia leaves; Phlaeocastor woodpecker; Anturus spp.; Cleora castaneus reported on Cecropia trunk by Suzanne; black Sporophila aurita? reedster w. white breast prominence; 1 turkey vulture; swifts - large, rounded mostly; 20+; tail tip not forked but rounded. \square ; wings seem to narrow near body. We prepared specimens. Overcast day; sprinkles last night. Saw dendrocygnetid w. short straight bill. Poked coffee pulp looking for cicadas. Pulled banana leaves. Erik took a salamander at mouth of hole; but lost it later. We ~~set~~ put 3 mist ^{nets} ~~nets~~; 2 near tilapia pool, 1 in grass near pig pond 1/4 mi. to E. (about 1 a.m.) Early eve, took an Artibeus lituratus + a Stenura. Later, took about 8 small bats (EJK catag.) plus 5 big Artibeus, discarded. 3 ϕ Artib. lit. were lactating; 1 a large tester. One Dendroica near pig pond (Bro. Droege said that "la gente" dice que the bats suck some dry). I set 10 snap traps near the "jacaranda pond" of creek in coffee area.

27 April. Took up traps - no catch. Several white-crowned parrots in Swainsona tree in front about 0600; saw flight of 12 hooded N. Baltimore Orioles also in those trees. Later, saw Centurus aurifrons there, E. England, tropical bird. Saw Centurus a. w. visit (?) in bill, as if going to a nest. Sue + I saw squirrel cuckoo (red brown; white tips tail) in tree of coffee field. I saw gray dove, small, in low tree near bananas. I saw a shiny olive brown snake in coffee field. Erik prepared specimens. We got underway about 1030. Saw ruddy ground dove near Miravalle. Two white-tailed Lites over flood plain area on way to Palochi R. School picnic in Talamon, where stopped. Then drove E. to El Estor (60 km. from Fca. La C. to Las Dantas) on rough dirt road. Stopped. Stayed at Univ. San C. lab. Personnel reduced in Cynobol colony. Bird watched near Las Dantas in late eve. Saw 2 Amazilia parrots, 2 Leucotis woodpeckers together on telephone pole top + later in tree. Saw Myiozetetes, Dendroica



Journal

28?

27 April 1978.

Las Dantas, Dist. Izabal, Guatemala. Elev. 10 m.

petechia, roadside *hauke*, *grochler*, *Centurus aurifrons* 1, many *swallows*,
another *D. magnolia* *warbler* in bush. / We set up ³ mist nets near lab. building at
edge garden; set no traps. Caught in net 2 *Dendroica petechia*. Many brown
butterflies in net in evening; took one small *bat* (EJK catalog). *Ceprenulid* caterpillar.

29 April 1978. Saturday. Net held *antilope*, *Myiophobus* flycatcher, ruddy
ground dove *Columbina*; later *Dendroica petechia*, *Sporophila*, *Turdus*. We
paled boat out inlet. Fleeced 20± embellunoid bats from bushes overhanging water
near dock. W. casting net, took several small fish (EJK catalog) in 3-5'

deep water. Saw *coronatus*, green *heron*. Heard *citreoline trogon* near dock. / Heavy
day, mod. hot. / Returned to lab about 1100. / Later in day, note near lab took
(t. 1 1/2 mm.)
Trogon citreoline, *Myiophobus tyrannulus*, & seed eater (*Sporophila*?), *Dendroica petechia*?

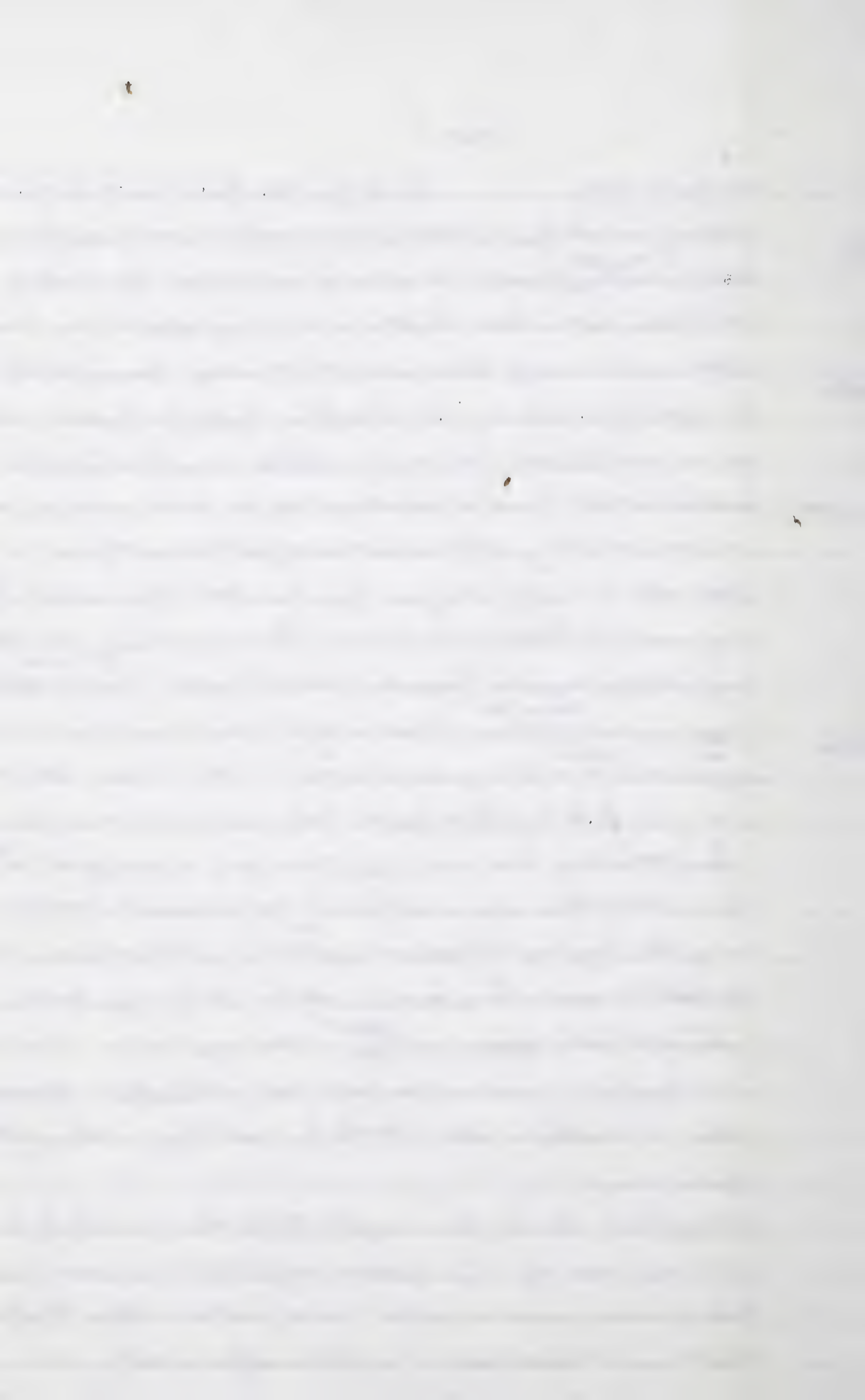
Tyrannus melancholicus. / We put out about 30 snap traps & changed location
of mist net (no 2 left in garden; 2 to N). / about 3-5 p.m., took boat

ride w. Adolfo to *Encuentro de Lagartos*. Took a snake in water 200 m. from
shore (EJK catalog). Saw 2 *aribon*, Amer. egret, snowy egret. ^{Then} ^{to}

to mouth of *Salochie* where on estate saw 200± *coronatus*, 200± *terns*
& gulls (laughing?) (*Caspian* *royal terns*), stilt, sandpiper, 2
black-bellied tree ducks. Lower part marsh has thick grassy banks. We

returned to lab. Saw an *aster* (?) *aster* at shore range in garden. Took
♂ & ♀ *Cuphonia* in mist net eve. / after dark, a *Chloroceryle* & *Ibisophaga*
taken (EJK catalog) in nets. / Martha H. reported *Amazona ochrocephala*
parrot seen.

30 April 1978. Sunday. No rain night. *Ontario* drove from brushy hills
to N. about 0630. My 12 traps yielded 0; also Jodi's to N. of road yielded 0. / I saw
tracks of raccoon & racoon in creek bed. 2 nets N. of road took 2 *antilope* *lituratus*
(last. 8) and 2 *antilope* *phaeostri*. / I saw *Centurus aurifrons* on dead tree in open w. hole.
Saw *Amazona autumnalis* in trees near grassland. / 2 nets in yard took no bats.



Journal

30 April 1978.

El Estor, Dept. Izabal, Guatemala a. 10 m.

Bats in ESK catalog. / ~~Net took several specimens~~. / We visited town to shop & get local info. / Netted Sporophila tungurusi ♂ t. & m. / a ♂ + ♀ Euphonia berindana netted & released. Two Trogon citreolus taken in nets & released. An Oryzoborus ♂ (spec.) + a Geothlypis montana (spec.) netted; held overnight; blood sampled. Myiarchus tyrannulus (spec.) was laying. / Marsha H. watched brown jays mauling a (roadside?) hawk. She reported a Euphonia w. black throat (= white-wanted?). / Net put near dock to observe Phrynosoma macleayi (ESK catalog) in use.

^{Mon.} 1 May 1978. Nets took no bats later in night. Muggy & rainless. Net took a Euphonia in day (spec. OK). / Erik had fish die in containers; he preserved these and took others w. help of Bill Disher. / I spent most of morning getting Jed Percall off on launch to Maricao; several delays, but finally went about noon. Yesterday & today hot & muggy; about 90°F. I put up 3 birds. / We prepared to depart tomorrow early. A "labor day" holiday today. ^{Houder monkey calls in early morning.} Caprimulgid calls evening. Oropendola heard during day. "

2 May 1978. Up at 0400 & departed before 5 a.m. for Pualhá area. Too hot, muggy, & buggy at Estor. ^(about 500' elev.) Chaco bridge beyond Papalá seemed good bird spot, w. large trees along river. On to Tucumán, where market day in progress. Took a few photos. We are carrying fish caught yesterday, hoping to ship them alive from Isote. ^{1700'} Hot in Tucumán. Snake in air & occasional fish seen. Oropendola nests up to above Tamashú, to about 3500' level. Much cooler & drier at San Fulcín & Pualhá. Went to Quisic (Lemon Ranch). Took bird walk. Saw several ^{Myio-} Myiozetetes similis near springs; about 10 Sporophila tungurusi in group in grass of old cornfield; also one Zonotrichia capensis. Saw Turdus grafi & several T. to rufitorques in trees near houses. Saw black Oryzoborus in bush near house. One busy-headed jay. Bluebird. Sunny & calm about 5 p.m.; little bird activity. / Erik & Bill D. searched bromeliads in isolated tree groups and soon took 5 large salamanders.

Journal

5200'.

2 May 1978.

8 km SE Pavalha, Ppt. Raja Verapaz, Guatemala.

We prepared to depart for city tomorrow. Clear calm evening.

3 May 1978. Left by car about 0800. Saw roadrunner (2) near km. 115 in pine oak zone; another n. km. 100. In first hills w. of El Rancho, in spring desert, I saw at least 3 doterion (^{9plaris?} Chrysotrichus?), large muric & gilem.

Delay for 3/4 hr. for road construction; calm, smoky, hot near El Rancho.

Av. km. 90, NW of El Rancho, we saw 2 Monstera in spring break on road.

Delays for road work; reached Santa. about 1 p.m. Turned in VW panel truck. Stayed at Swiss Chalet. I visited Donfer and got my collecting papers from Gonzalo Cruz Garcia. Cool evening.

4 May 1978. Clear day. With Sam & Marsha H., went by bus to Antigua, about 43 km.

Found some acacia trees where I saw jays. Good market for produce & handicrafts at Antigua. Ruins of old buildings & churches. Looked for Jacques Van Kiehl, who was away.

Returned to Guatemala, Chalet Suiza. Cid arranged permits for export of live fish.

(UREP participants)

5 May 1978. Marsha H. & Bill D. departed on Pan Am, former taking live fish as carry-on luggage. I visited Rodolfo Argueta at El Balto co. in Maya Bldg. While there, they

received letter from Vollmer stating that WWF had turned down S. de los Meios proposal. Rodolfo was much more optimistic than Dorris about eventual funding. He was currently

much interested in bats & planned a book in Spanish on bats. He said bats in some near Xela(?), N of Coban, where Sherbrook Oil Co. operating; might arrange visit for me. I

got Mexican Patrol 4 w.d. from Matamoros, & we (w. Cid & me) drove back to Quirri ranch, arriving about dark. Clear & dry there; no rain for many days. Saw gp. 10± parrots fly over road about km. 90.

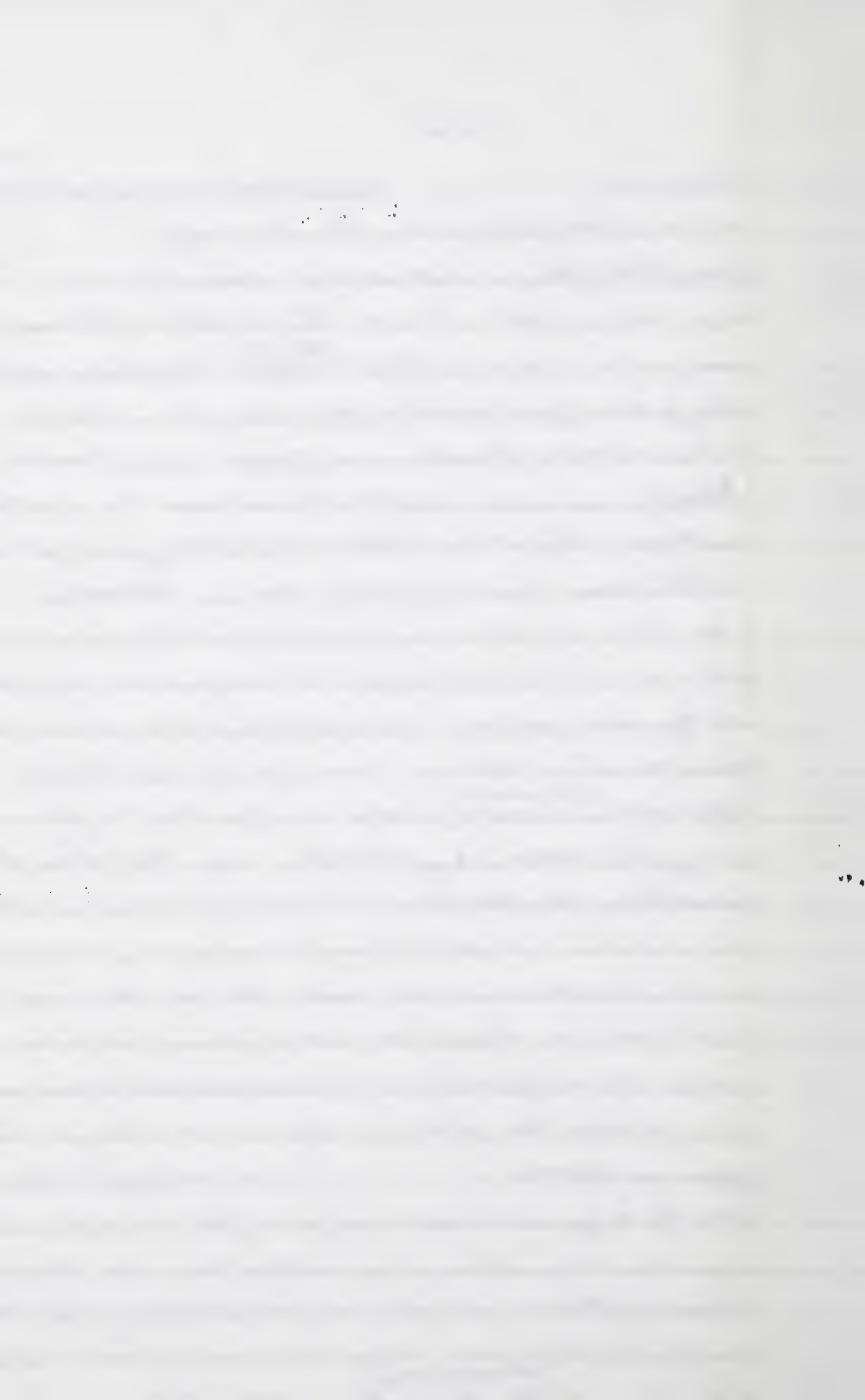
to near Tamah, Alta Verapaz

6 May 1978. No fog; cool. We spent morning searching bromeliads for colanandrea in area 1 km SE of ranch house, in 3 acre isolated gp. trees on slope. Obtained over 20; personally I took 8 in 15 bromeliads. Many at highest reaches by hand. We

drove then to Tuxtla to shops. Then down Palochin road about 10 km. to Finca

(+ Doña Maria Santa Cruz)

Orden Roja, of Guillermo Garcia, where invited to visit. about 4400'; near road



Journal

6 May 1978

(about 10 collemanii in pairs.) 8 Km E of Tactic, Dept. Alta V.P.

+ his Palochi. Much grassy open slopes, w. some cattle. 1 km. S. of house, edge of forest, mostly Liquidambar in some sections; pines rare. Tall o. tra. + "Chio" (Francisco), caretaker, about Kibiki names of animals. Chio knew of no armadillos, puma, or feline in area (he a native) but did not seem a sharp observer. Only magama deer, + white-legged peccary. No tiger or danta. Sue + I walked up canyon to S. + up into woods, to 4900'. In opening saw Myiozetetes carrying a strand of grass; another flycatcher (Tyrannus?) attached it in air. A Carpodacus perched atop fence post. We saw grackles, Sialia, seedeater in open. A trogon, brown jay, copandula in forest. Liquid. ambartree to 80' tall, 16" dbh. (Chio went higher on another route; saw green toucan, jay w. black head, Dryocopus? woodpecker.) Said no rain for 2 weeks here, though annual rain great. Black snake on fence near house. A warbler (gray face, wide yellow supercilium; yellow throat, 2 white w. bars, light gray belly, dark gray back, spots at sides of breast.) We set up 2 bat nets near house; one over stream in grassland, one among citrus trees. Late Lotten took a Sturnia about 9 p.m., another

day morning. Two rat traps in rice storage area produced 0, the large dark gray rat seen. Sh. amellus baris says over to S, over cart, primitive, + protected from hunting for 8 yrs.

7 May 1978. Another walk in hills. I pulled leaves on 10 havanor; no colanensis found. Chio examined brunclids in hills yesterday; none. In the Palochi R., here only a meter wide, I took a 3" "chub"; others taken in streamlet by house. I also took a frog (CSK catolog) in Palochi. We prepared specimens, then with Dña M. + daughter Sarah, we drove to Tamahú + up a side road to S. to Finca Santa Elisa, of Dr. Belia Santa Cruz de Moll, about 3500' elev. Overlook the town. Coffee, havanor, oranges. Only 1 1/2 collemanii, but nearby trails up into to S. to hunting zone. Eduardo Moll a hunter; he had skins of F. wiedii (juv.), Procyon, 2 Potos. Said puma nearby recently. Forest deer, but white-tail rare (he had ^{specimen} some of one). Only w-l peccary. No foxes. No tiger or danta. But armadillo sí, + lepus paca, agouti. Paca hunted when zapote + aguacate drop. Said saw living vulture once, years ago, but some crested hawks

Spec. -
Lote 4086-7

Spec. -
EJK

Journal

7 May 1978. Sunday.

Near Tamahú, Dept. Alta Verapaz, Guat.

and white hawk in his area. He has 4 green boys; some hunt there. Uncertain that they know salamanders. Mall said Basiliscus laid eggs at this season in sand by his road. We saw grackles & wrens near house. Some potatoes made in canyons. I pulled leaves on platano but found no verticillates. Large house & seemed to welcome visitors; road up steep & rocky. / No one recognizes cacomixtle drawing. This family says no shamans. But weasel (no type or genus recognized). Squirrels - they say 2 or 3 kinds; I saw some under pines near house. / We saw bonillium on road above Tamahú. Visited a weaving shop in town, where make huipiles. / Returned uphill in late afternoon & drove to Quiché. Black-colored swifts flying near road. Still still no rain.

Nr. Purathá, Dept. Baja Verapaz

8 May 1978. About 6 a.m. I saw 2 yellow & black orioles in planted coffee in yard; apparently I. chrysogaster. Nearly clear dry day w. breeze. / We prepared to leave for Chileno & localities to north of Sierra crest. / Visited w. Paul Garrity near La Unión. John Campbell & others of Arlington, Tex., due here soon. A large pale owl flushed by bee & others in trees along creek. Jays (Cariacus?) in trees near house. Flickers common. / Drove to Fca. San Jorge & talked w. Rodolfo. He had 2 lizards & 1 salamander in formalin for us. Has rented house in Salamá. He & father contemplating sale of finca soon. Still logging rogal & some other trees; open, tractor, trucks here. Also Indians collecting tree ferns, each about 3' long; Rodolfo said recently sold 5000 of them. / We drove to Chileno & up very dusty road to Fca. Miranda, about 10 km. Grassy pasture in bottom; brush or burned brush on slopes; second growth forest about 30' high above, then taller forest. Only a couple of shades, but Indians bringing in tree fern blocks, each about 1' x 1' x 4' (said worth 1 Q.). Took photo. Coriaria prominent. Avocado tree w. ripe fruit; trees to 40' tall. Burned hills planted in corn & beans; plants 4-1 ft. tall now. Blackberries ripe & abundant. Set up 2 mist nets near clear stream

Journal

1900 m.

8 May 1978

Nr. Chilasco, Dpt. Baja Verapaz, Guatemala.

about 10' wide. Heard caprimulgids.

9 May 1978. Foggy dew. Peter took 2 bats (sp. spec.), 1 Turdus grayi (re-
leased). We walked up canyon & a mile up a bulldozed road to about 6400',
to end. Apparently logging road. Near end, pier to 2' diameter (5 m. thick,
limp, 8" long; 4" in diameter cone). Some had large branchlike on trunks. But
apparently limited pine area, on N-facing slope. In canyon, w. large
broadleaved tree. We pulled down branchlike & searched them for salamanders.
Most from pine trunks. Took about 21 by noon (ESK catalog). Very dry
now from lack of rain. Flashed firebird (antelope?) from hole in road
bank twice; hole 8' up. Took a lizard on road; Alania? (ESK catalog). We
returned to Miraflores & drove back to Chilasco. Many Liquidambar trees,
large & small, along road, & several clear creeks. Then descended to
W. to area of Monterico, where camped near clear stream on side road at
about 1500 m. Some logging w. open 1/2 mile up slope. Some of mixed small
pines & oaks & Liquidambar. We put out about 20 mammal traps, no
rats. Saw 1 small bat evening. Very dry. No results from turning logs, rocks,
rotten wood. Used fog spray by haze, but stars out. Rain about midnight.

Nr. Monterico -- to Santa Cruz.

10 May 1978. Hard rain for a few hours at night. Cuckoo heard near dry creek
bed held 3 Peromyscus (CK catalog). Mine near 6' wide stream held 0. Heard
tiger (notisaurus?) calling, 5-9 "chows," about 6 a.m. Antelope heard. We
dried out as fog cleared; first rain for 2 weeks or more, I think. Yesterday
we got a few tiny fish from stream near Chilasco; the boys said catch
larger (2'-3"?) w. hook. Kind? Elatia? We departed & drove down to El
Bando. Then E., searching for good roads up into Sierra. Graveled road
leading to San Augustin. Took side road to El Jute, undeveloped area. Rough
dirt; trunks w. logs. Hot day. Talked w. locals & truck men. They said
road had slide & cannot drive to Santa Clara. But can drive on 1-1 1/2

Journal

10 May 1978

Dpt. Zacapa, Guatemala.

hwy. to a summit, where logging pierce. From there, 3 hrs. off to Santa Clara. We returned to highway & went E. to Santa Cruz. Spare tire on back of car blew in the back; stopped to get repairs. Motels & comedores here. Went E. about 2 hrs. & took side road to Ojo del Agua & El Mammal. Dirt road, some trucks. Saw motmot in gulches, dry area. About 2500' (1000' at Santa Cruz) rocky, saw ^(1. scutellari?) oriole, collected lizard on boulder (EJK sat atop), a Chlorophanes. Dry scattered low trees. Much of country had been burned recently, including steep slopes. (Lower, oriole w. black throat, yellow wing bar, no yellow in tail). 3000', first scattered pine trees. 4000', pines & oaks, oaks, mahoe; a few cattle; acorn woodpeckers. But still much burned over. Road switchbacked; often steep & rocky, but 4 w.d. in jeep not needed. At 4700', road flatter; spreading oaks(?) w. hanging lichens. High limestone cliffs (photo). Road up east foot of cliffs, 5500'. Oaks featured w. branchlets, mostly narrow-leaved types. Pines being logged. Mostly < 16" dbh. 5700'; road flat or near mammalaria. About 20 small houses at San Lorenzo. ^{scarcely} water, ^{scarcely} no streams. Much pine area burned recently. Camped near limestone sink & branchleted trees about 1 km. before S.L. Saw jays (Circuloph? - fly buzz note), especially in pine burns. Saw Campylorhynchus zonatus among branchlets. / Cule & I set about 15 traps each, & we put up one mist net. Traps among trees, brush, cactus, & gray boulders.

11 May 1978. No rain, but drizzle. Net took 2 Blossophaga (EJK sat.) Traps took about 8 Peromyscus (4 spec.), all same. Mostly near holes in rocks. Sue & I saw 2 Bassaris in pines; seemed same as at Chilans, same. I saw 20+ Cedar waxwings perched in broadleaf among pines. / We gathered ^{and} examined branchlets, mostly under 12" leaves, but no catch. Many moths on ground but not examined. / Talked to man at store at San Lorenzo. He said road continued on these hills to Jacon. Prominent peak to NE is

Journal

11 May 1978.

Nr. El Moranal, Dpt. Zacapa, Guatemala


Volcan de la Paloma; another, to N., is Vo. del Mono. Latter has new logging road around E. side; owners named Kloss (sp.?) is N. American. He said howler monkeys in area to N., minor (Atelopus) farther up in mts. He thought usual array large mammals present, including coati de monte and puma, but not tiger or danta. We drove up the dirt road toward Vo. del Mono. Mostly wet pine, the same second growth area. About 6500', 4 km. out, came to place where large-leaved bromeliads abundant on trunks of ^{pine to 10" dbh} oaks & on oaks (?) too. We cut & searched bromeliads; contained much water. Suzanne found 2 large black salamanders after searching 12 or so. I found none, after searching 20 or more. ESK got one of another kind, + a snake & a lizard in bromeliads. Spent 2-3 hrs. at this. Then we drove farther N. Road ascended in switchbacks then old cut area above pine zone, and entered a patch of tall dense cloud forest at 7200', on E. slopes of Vo. del Mono. New road, still in construction. Road then the first about 1.5 km., then into old cut-burn of pine near Ca. Morala, & being extended to pine zone. Workers say the hardwoods are "no more useful" about 8 km. from San Lorenzo to forest. Wind & fog coming from N., so visibility poor. We camped at open entrance to thick forest. Set about 15 traps each. Put up 1 old mist net at side of road in forest. Flushed fern bird (Antimolus) from bark hole in 2 places. Heard trogon calls frequently. At one point, both ♂ and ♀ of T. callaris scolded us, coming to about 50'. Workers said quetzals present, & "sarguateri." By 8 p.m., my traps took at least 2 large Peromyscus, of kind taken earlier at Chidano & Curva del quetzal.

12 May 1978. Windy most of night, & dewy. Some fog to N. at dawn. Heard early chorus of Alouatta and apparently toucans. Later walks, saw Turdus infumatus, Antimolus, hummers, quetzal, mistnet (ESK),

Journal

12 May 1978

V. del Mar, Dept. Jacapa, Guatemala.

dendrocolaptes (straight bill; spots on under actively). Trogon again at same spot, scolding me (rest). *Automolus* w. food? in bill, went to hole in bank of road. In barish tree at edge forest, *Aphelocoma* *vericolor* (2). Saw a *Sciuropus*, brown, medium size. No flycatchers noted. But some warblers. *Myioborus* loud call; fluttering or gargle;  c, as of large bird; in damp canyon. Took some photos of forest. Road goes about 270° around V. del Mar. Tracker - look like small fox, in road. Droppings - 4" w/ green shape; contained feathers, 1 mammal hair, insect parts (= ?). Kloss said to have seen mill in El Ranch, *Impatiens* plant in Isabela. Workmen had ^{rarely} seen snakes here, the brown "Touagui" (*Batrachoseps*). No stream, but some rivulets crossed road; enough for cooling. Swifts flew close to campsite. Erik searched for salamanders in bromeliads & got about 3; Sue & I searched on lawn & got one (head cut off; EOK catlog). We searched near S. edge of the forest patch near clearing & burn; searched broad leaved bromeliads up to 12' above ground. Many other types epiphytes in abundance in forest. Cold & windy. Moved camp down to 6500' in mixed pine (mostly) & oaks on ridge. Much drier there. Saw oak woodpecker, jays; heard trogon (7-ankle type). Saw flicker. About noon, one *Sayornis* *sayornis* round over the pass (pine zone) and circled. I found 2 salamanders & 1 snake (all EOK catlog) in bromeliads; Erik found about a dozen salamanders, apparently 2 or 3 species, with about 4 hours hard work. Flies & mosquitoes at times, but generally clear & breezy, not hot at 6500'. We drove S. to San Lorenzo. Visited marble quarry. Took photos (also of V. del Mar); several roads visible through cleared area S. of V. L.P. Camped near site of 9 May. Clear & dry. Set up 2 bat nets, one near mouth of owl caves. Net took hummer (blue crown, red lower mandible w. black tip, orange tail, white throat, green dusky straight bill); rebird.

Journal

14

5900'

13 May 1978. Sunday

Nr. Eñoloren 29, Dpt. Zacapa, Guatemala.

Clear & dry; light breeze. No catch in net. Found no ants in cave. Heard in night an owl (?); single muffled grunt. Saw *Cisilophus* blue jays & bluebirds. Yesterday, big red-headed woodpecker in hardwoods av. San L. We prepared to descend to highway. Encountered no traffic. Acorn woodpeckers & flickers at upper levels; orioles at bottom. About 1500'; at bend & stream, a motat as on way up. Family tame. Had to go through a locked gate, w. gatekeeper (we said friends of Flores). On to highway & his Honda, very small town w. no market. Then went S. to see *Pygospio* & shops. Good market; but. Repaired 2 flat tires. Then back to highway E. & on to *Junco* river; backtracked 2 km. to side road to *Junco* & went N. Saw scattered habitations along the way. Houses plastered & white, w. tile roofs. At our settlement, road renamed (*Cajonillas*?). We talked w. local men. They said road went up to *Planadas*, where ranch of *Julio Vargen*. We ascended road; steep in parts, deep dust; 4 w.d. essential. Went up through houses & up to river, about 2700'. Parts burned & smoking, though roadside engine on trees urged fire prevention. Sparse ^{perky} trees, mostly ^{12'} $\leq 12'$ dbh. A summit at 4800'. Then down & up to 5600'. Oaks, liquidambar, second growth low forest. 5100'; occasional bromeliads. Many old logging ^{roads} to NE; cuts in face slope. Regrowth *Liquidambar*. Then patches ^{corn & beans}; a few Indian huts. Broadleafed *montana* visible to N, above 5500'. at 5000'; a gate; then road down to Vargen house about 5500'. a few Indian huts. Cattle. Cut over slopes w. *montana* above. Large leafed bromeliads in trees. a clear stream. Vargen, 35 yrs, at home & friendly. Had 45 calallenas. Perse logging done, but men cutting *leña* in burn. Road continued up for 2 km. beyond house, but only to edge of cut area. Sideroad down to E. to another clear

Journal

14 May 1978. Sunday.

NE of San José, Dept. Zacapa, Guate.

stream, 100 m. lower than house. Chickens & dogs in yard. No luxury. Vagan seemed interested in conservation; intended to hold broadleaf forest & its big trees. Planned to plant pears & coffee & rice. Said he'd worked all life to develop this place, a wide valley facing SE. Named Finca Monte de Moran (area Planada de Mayot on map). Trail to Rio Yanesa started here. Must talk on into night. We slept in house.

15 May 1978. Monday.

More people arrived. One man to look for plywood-sinted trees & identify others (as in Moderados in Morales vs. Bananera). Cich looked for salamanders. I & she went with 5 men to look at tree birds in montaña, afoot. Descended to house stream & ascended trail, said to lead N. to Rio Yanesa. Local helper, Don Carlos, carried a bottle of ? & was soon drunk. Trees huge - some 3 m. diam. Identified by barking at bark & wood. Could walk about fairly well in forest as undergrowth thin. We wandered about & had difficulty finding trail back. In about 3 hours in forest, saw a herd almost no birds. Much less birds than Ho. del Mono. The men said no coche de monte here, nor tiger, but puma, arvicillo, peiate, passer, rocon, tipismulle. Said a rattlesnake killed nearby recently & used for medicine. As elsewhere, said bats small & salamanders poisonous. Many biting garridos; my ears swell on from bites. / Back to ranch house & rest. Cich had taken about 30 salamanders (EJK catalog). I put out 15 snap traps near logs & holes at edge forest, & set 1 net near stream. No rain.

16 May 1978. Tuesday.

My traps took 2 big Pharyngodon of same kind as at Chilarco; black face & rufous chest. Discarded. One Stemnia in net (spec.). / I helped Cich search for salamanders. We got about 40 in 4 hours. At one point, only 1 or 2 in an hour.

Journal

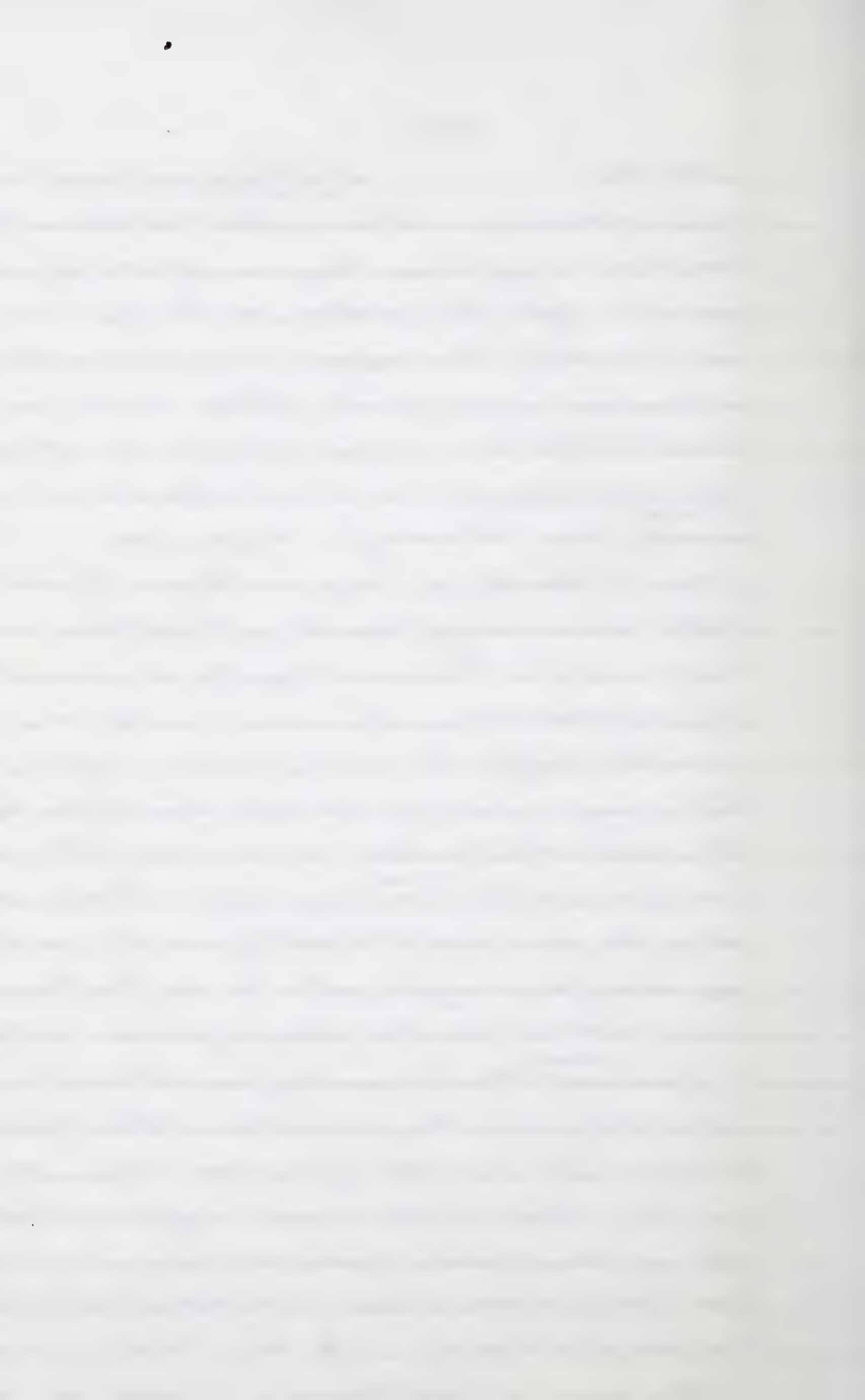
16 May 1978

NE of Jones, Opt. Zacapa, Guate.

of water; at other times, several in minutes. Best birds in big bromeliads at edge of brush. Many were in plants lying on the ground, or on fallen trees, partly dry. also took frog in bromeliad (ESK collect). Green Sceloporus fairly common on stumps, as at previous localities at similar altitude. Few birds seen or heard. But bluebirds in openings. Swifts flew close at times; apparently Streptoprocne, w. complete white collar. I put out net (no catch) in yards. Rain in late evening. Martín de Morán

17 May 1978. Cooler after rain. We prepared to depart for lowlands.

Ontario heard in morning. Apparently no Alouatta here (none heard; men said none). Drove down to Esquipulas. Stopped on volcanic ridge about 4500' & took one salamander in bromeliad (ESK col.). Hot day below. Briefly visited Ins. Vargas & Linder near highway. Drove then to W., inquiring about roads to N. Apparently none to either Santa Clara nor (walk from Teculután). But heard of road N. of km. 100 (near gardenia) via Estación de La Virgen. That proved to be a small village, where said road went N. to Fca. La Vega & montaña. We started up dirt road, steep & rough in spots. From town, 8 km. to a gate & house at 2600'. About 1 km. above, a large old green house (said built by former ^{present} Chacra) on promontory. River started 2000'. Dry valley but strips green trees, mainly oaks in bottom. Mifaloban & small river. No bromeliads. Coffee at 3700'. 15 km., white modern house at Fca. Santa Clara. Avocado & coffee planted together. Other areas cleared & solid w. bracken. Some bananae by huts at 4700'. 5200', about 17 km., sharp corner & Fca. La Vega. Visited by Sr. Don Teodoro, about 75 yrs., German, the house in Isote. Formerly agricultural engineer on S. coast. Many years here. Mostly coffee, but



Journal [Finca La Bella]

17 May 1978.

N. of San Agustín, Dept. Zacapa

some cattle, pruner. Wife ran school in Guatemala. Small nice house; hospitable. Good English. Let us camp on his land in coffee grove. at this level, rare tree, pines or liquidambar. Road continued about 4 mi, up another 1000'. Possibly l-l forest above. Cloudy, sprinkling, lightning. Teodoro kept orchids, did not allow hunting, but little knowledge of animals. / Rained an hour in late evening.

18 May '978. Finca La Bella, of Don Teodoro Engelhardt. Cloudy but cleared gradually. Heard parrots. Inga & Australian oaks planted between coffee bushes. T. said road up passed old log cabin, & many bromeliads beyond. We drove up road; 4 w.d. needed in parts. 2 hrs. to edge clearing & start forest at 6000' (5200' at house). Tall forest w. bromeliads high up. Logs of "chute" at sides - T. said 180 truckloads of such taken out last year. 6500', entered another clearing below log cabin. Cabin old but clean & roof waterproof galv. shute; good camp, at 6700', start of l-l forest above. House 10 m. square. We parked at house & walked up rough dirt road through forest. About 3 km. to 7400', where there had been recent logging at foot of a pine (some or most pseudotsuga) patch. One branch road ascended even farther; we walked to 7600'. Mt. tops still far above to N. Co. Lindon? Heard tigers. (T. said there were great cats, hunters) but saw no tracks large mammals (one racoon, lower). Few bird calls. Saw chestnut capped Atlapeter. Found a dying Aphelocoma unicolor on road (specimen). Searched bromeliads; Erik found 2 salamanders in about 4 hrs. Bromeliad high in trees & on ground, but almost absent in many sections. I briefly saw 2 dark gray snails on ground in woods. Three places on mossy banks of road we flushed a robin - sized dark gray bird from nest (cup of moss) w. 2 (once 3) eggs, white w. rufous spots. Tail gray w. white tips on center feathers,

Journal

18 May 1978

Ahuc

~~Abasco~~ Fca. La Bella, Dpt. El Progreso, Guat.

shades white toward center. Many bark holes on of Automolus, but flushed none. Did not seem a "birdy" zone. / Rain threatened. I set 17 snap traps near holes along road bank (sheltered mostly) + under logs, + big holes in trees. Cinks set 10. Rain. Rain. Rain.

19 May 1978. My traps held 5 mice, including Heteromys, 2 kinds of Peromyscus (spec. catalog). Fog in a.m. but no rain. Occasional hummingbird near house. Some blackberries ripe. Heard toucan. Anullanus near house; swifts occasionally over woods. / Prepared to depart. / Rain had washed road, but no worse than before. Cabin to Don Teodoro's, 3 1/2 km. He not home. Drove down to big green house, 2700', 7.3 km. from La Bella; apparently partly occupied, + windows intact - not a "bat house." On dam to highway, 20 km. from edine (+10 km E. of Hato bridge). On way down saw matmot, oriole, ruddy ground doves - a good road for a bird transect. / Ascented to Los Llanos, about 3000', in pines. There they had cages w. several kinds of half-grown parrots, anaganti + juv. para, 2 Uragus half-grown, presumably bought from local hunters. / We continued on to Quisic + stayed at Lemus' house. Cinks put ^{2 rats} out across creek.

20 May 1978. Saturday.

Quisic, km. 156 Dpt. B.V., Guat.

No rain. Loose foggy clouds morning. In mty. Cinks had taken 5 chestnut-collared swifts, Cypseloides nattereri; one or w. collar. (spec.); 3 ♀♀, all non breeding. / Visited Savitry family at km 155. John Campbell, Univ. Texas, expected but had not arrived. Drizzly afternoon.

We prepared to depart tomorrow

To Guatemala City

21 May 1978. Partly cloudy. Visited Savitry + left before of gear. Then drove S. to ^{Cumbre} La Cumbre + down to Soloma. Visited market. Then on to Rabinal - road climbed to about 3000' then descended to flat valley. Dry

Journal

21 May 1978. Sunday.To Guatemala City

country, rocky, but slopes cultivated. Burning signs rare. Good livestock market at Cobán, with many Indians and their clay pots and other wares. Then took road S. to El Chel. Dirt road, one way, but much rock & not too steep. Scattered oak scrub & bushes; all cultivation. Pine started about 3000'. Later more oak trees, those above 5000' w. bromeliads. Patches of banana or cane. a summit (Cerro de Santa Rosa) about 6000'. Cide examined a few bromeliads there, but no salamanders found. Descended to S.-most, patches larger pine, a few clear streams. Road gradually improved. Good views, far to S., of dry brushy hills mostly. Crossed a wide muddy river on white steel bridge. Road up & down, winding. Occasional oaks. Reached paved road about 30 km from Jack Bratti. at San Juan ^{SAC.} ~~SAC.~~, a larger town. Pine area, probably used by city folk to cool off, or for weekend houses. Truck crops on terraces. Returned the car (Mexican Patrol) to National Car Rental. Stayed w. Cide & Suzanne at Chelot Surja. Light rain in evening.

22 May 1978. Monday.

Koford, C.B.

1978-1979

Journal

calif

C Koford
1978

Journal

23 November 1978 (Thanksgiving Day) Berkeley to Shandon, S.F.O. Co., Cal.
Departed alone in my '66 chev. perhaps for condor trips to Mt. Pinon
area. Left 11 a.m. & went via highway 5 to Kettleman Hills turnoff,
thence west on 46 to Cholame, S. up Palo Prieto Canyon to El McMillan
ranch on Silleri Canyon road. No one home. Continued to San Mc Millan
ranch & my shack there. | Clear in upper S. & T. Valley but cloudy (fog)
south of Los ^{Banos} ~~Banos~~ turnoff. Much ploughed ground in valley; flocks of
shorebirds (curlews?) some sites. | Visited w. San Mc M. family. They
planned quail hunt in Deer Camp area in morning. Phoned Elan.

24 November 1978 ^{Friday} To Mt. Pinon area, Ventura Co.
Grass (new green) 1-2" tall. To El Mc M. place &
departed w. him in my car about 11 a.m. S. up Butterwater Valley, thence
thru California Valley & S. through Carrijo Plains. El saw several
hundred sandhill cranes in grass near road, just S. of Painted
Rock area, yesterday. We saw none today, but flocks of mountain
plains (100 ± one flock) feeding on ground. (Near El's house, on
ploughed ground I saw flock 50 ± hill deer this morning.) We
searched for condors in air but saw none. Saw cattle but no
sheep. (Cattle calving season now, & sheep lambing season. San
said many sheep on alfalfa stubble in S. Cuyama Valley now.) We
took fairly paved Mt. Abel road. (El said canyons to W. had been good
for condor sightings in past.) Near Apache saddle, many fine
new wooden houses, & much car traffic. Clear sky; light
snow on ground above 5000'. A jam of cars at start of road
up Mt. Pinon; chains required to go up that road. Hundreds of
people, many w. skis or sleds, walking up. Went to Chuchui
rate R.S. District mgr. Dave Alexanders had left, but office girls
helpful. Janet Hamber & I friend were there; could not go up
Little Pine road today because too soft. We talked about setting

Journal

24 November 1978.

Dr. M. E. Pinos, Ventura Co, Calif.

up a condor research expense fund. Mark Palmer, ^{Joan Schelling}, & about 10 other Sierra Club people arrived. Several of us went to camp at Regle Creek, 20 mi. through Larchwood Valley, at about 4000 ft. Cold. In adenostoma zone below piñon pine zone. Slept out.

25 November 1978. Frosty night; sleeping bags wet & frosty. Water froze. El said heard coyotes. Clear night. / Returned to Ranger Sta.

Met others; Dr. John & Betty Davis from Carmel Valley were there, & Wynberly Coerr of Defenders of Wildlife, Carmel. / We went to start of Mt. Pinos road; chains still required. So we went to Korman and about a mile out (Hungry Valley road, where we watched S. side of Frasier Mt. & tops other higher hills (as to E. on Tejon Ranch).

We at edge of motorcycle & ORV play area; hundreds of cars & cycles & much noise. We saw a golden eagle, ^(adult) flying & perched atop hill E. of Korman; also a coyote walking near cattle there; a ferret hairs over slope too. Above Frasier Mt. tops, occasional eagle or redtail, & finally one adult condor - it soared straight toward Tejon R. area E. of Grapevine Pls. We watched it for about 10 miles of travel. / Started to get cold wind; some

left, but rest of us drove back to Grapevine and east toward Edmonston Pump Sta. About 1/2 there, we saw group of several cars at roadside, & people looking S. up slope. They said there were 10

condors there, & that one had come about 11 am from ^{NE} ~~SW~~, & they had good view of features. / We set up telescope & saw several large dark birds on ground or in branches of oaks on grassy slope about 2 mi away. Mostly just sat quietly, but one was active, as if feeding or screaming, & often extended wings up. Birds seemed to me small for condors,

Journal

25 November 1978.

Nr. Grapesvine, Kern Co.

and wings too so narrow. I saw no color, tho other people said saw it. About 2 p.m. a condor adult circled above grassy bald hills; then 2 more, so 3 condor adults visible at once in brush field. They were in sight about $\frac{1}{2}$ hour, then (at least we) off to SE. (Elb thought he saw a fourth!) We also saw an adult bald eagle, and several kestrels & ravens, but no turkey vultures. The road groups were mostly sure that most or all the birds on ground were condors. Definitely white wing lining in one, but not sure - perhaps imm. condor? Gradually air settled & visibility improved. If birds were condors, would they stay in those small oaks all night? Some of us noted white at base tail in some birds. Elb Mc M. strongly announced that they were immature golden eagles at least 5 of them, perched on ground & on oak branches, probably at food. Several people had already left, sure in their reinforced (by each other) opinion that they had seen 10 condors, whereas we were sure of only 3 adults. We departed about 4 p.m. Many ^{small} calves among cattle on lower slopes. Apparently there should be plenty of food from 5% calf loss! We drove via Last Hills and Bitterwater Valley to Chen's place. Later I returned to my shack at San. In all this travel, the only signs I saw regarding condors were in the USFS office, & on the maps they distribute. More condor signs might help protection.

26 November 1978

I McMillen Ranch, San L. Obispo Co, Calif.

Foggy cold morning. Then FNE breeze as slowly cleared. More talk w. San. He said they saw hundreds of sandhill cranes

Journal

26 November 1978

El McMillan Ranch, Shasta, SLO Co.

near Westmoreland in Shasta Co., 24th morning. They
hunted quail in the California mountains. All
over 13 years old. Saw a quail. More than 10. Then
back to Berkeley in Hwy 5.

Berkeley to Chabon, SLO Co.

15 December 1978. Friday. Departs Berkeley 1 p.m. in my Chevrolet
& drive to Chabon in El McMillan Ranch. Fog in SLO Valley. Talked about
then to my sheep at Lavin ranch.

16 December 1978 Partly cloudy, serious - started in afternoon worked on my
sheep. Pruned olive trees. Talked w. Sam. Then to Ellen's for dinner &
talked w. Bill Francis (quail gopher) from Salinas (did paper on quail).
Hoping that, then Francis, Monterey Audubon will contribute to quail research
fund. Brightly evening. Slept at my sheep. / From Berkeley early

17 December afternoon, w. El, they drove through Carmel Valley & saw
several birds of hawk, mountain sheep, & some Saxifrage.

17 December, Santa Fe but clearing somewhat. Joined El & Francis &
we left about 11 a.m. for Santa Fe area. On Santa Fe we saw
flocks, many quail, canyons - birds, raptors, & a few deer. Many
stags & bucks. Black birds in leafless trees & in water. On pine
wires, savannah sp., hawk sp., w-c sparrows. About 30 raptors in
one area of ploughed ground, N end of plume. Hawks, mainly step
by road; 30+ kestrels, red-tailed, red-rough-legged, 2 ferris-
cious, 1 pigeon hawk, 3 or 4 marsh hawks (one ♂). Kestrel mostly
female (why?). Perhaps 50-70. Near Santa Fe & Santa Fe Ranch
saw: flocks 50+ eagles, flocks 100+ mountain sheep. Several
few sandhill cranes, then eventually about 2000, mostly in ploughed
grounds. Much "dancing" in some groups. Land calls. El says
has noted no decrease in the quail. When we got to land,

DE Davis
777 Rachel
Santa B. 93108

C Koford

Journal

17 December 1978.

Carriazo Plains, Shoshone Co., Id.

when people would show some, some, many, about at about 150 yds. range. / returned to Elsie about dusk. Dinner & took. Code to Lewis.

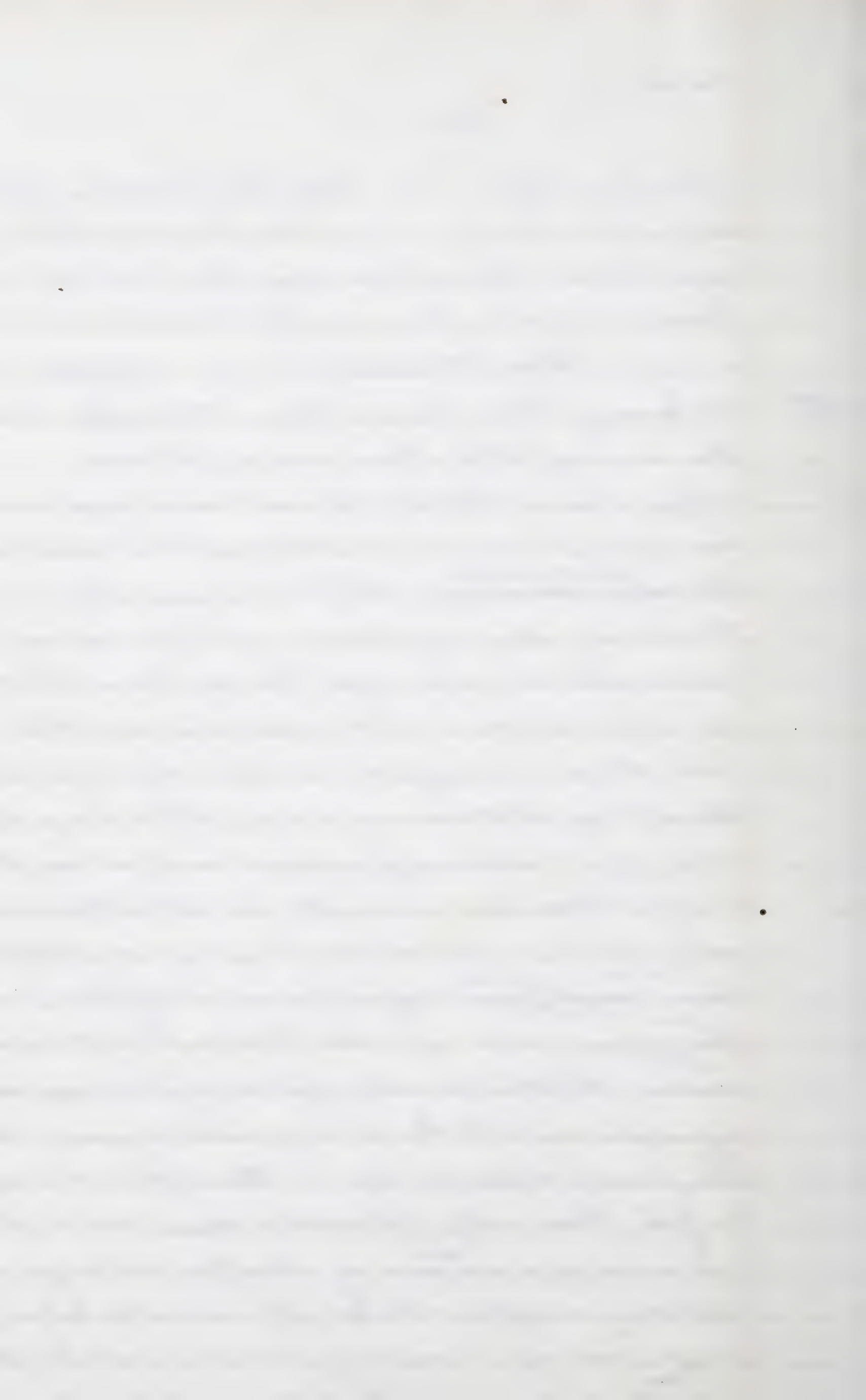
18 December 1978. Morning, Rain on + off. Hall (140' from) snow. Worked on houses. Returned to Berkeley. SLO Co.

1979

27 January 1979. Drove to Chalame + El McMillen Ranch. Clear sunny day. Talked w. Elsie re condors and other things.

28 Jan. Drove out Bellevue Rd. Saw 4 rough-legged hawks and 1 ferruginous by time reached Carrizo R. at Wreden Ranch.

Then via ^{Pozo to Hi Mtn.} ~~Pozo to Hi Mtn.~~ ^{some} snow on ground, stayed 12 m to 2:30 pm, watching Huff's Hole area of 1966-69 condor nest, but saw no whitewash, condors, eagles. Clear day, N wind, cold. Passed 2 4-w. drive cars on Hi Mtn. upper road; several others were heading thru pass for Lopez Lake area (main route from Pozo now). Returned to Pozo No USFS men around at guard station. Saw sp. of 4 Cathartes. / Visited home of John Arnold at ranch; not home; talked w. wife. She said that various raptors had nested in cliffs across road from their house. A Fish & Game temporary employee, ~~Tom~~ Walker, who was assigned to guard peregrine falcon nest at Huff's Hole, had taken groups of people up to nests. Mrs. Arnold thought had caused desertions, & that Walker too much of a falconer for job. / No condor warning signs on way to Hi Mtn. LO, & no restriction apparent to hiking down to the old nest sites. / I talked w. John A. at home of his father, Claude, in Pozo. John worked on Avenales Ranch. Said he had seen no puma sign ^{there} since my studies there. Said his son reported seeing 2 condors on La Panga R., near Beartrap Canyon, about a week ago. He said a puma track, large, near P.G.B. gate on Buckhorn Ranch recently. / John ~~Blake~~ Blake, who had taken photos of



Journal

28 January 1979. Sunday.

Nr. Pozo San Luis Obispo Co., Calif.

raptor near Pozo & Beartree had died about 2 years ago. / I drove via Navajo area to Hwy. 58, and down Shell Cr. to San McMillan Ranch.

29 January 1979. Monday. Clear, frosty. Drove up Shell Creek. Met & talked

with Steve Sinton (son of Jim) and John Arnold. They said a student named Larry, now working for Jim, was interested in raptors. / I drove on via

nat'l forest shrubland to Pozo road and Queen Bee campground. Slipping snow on shaded parts of road. Drove 1 mi. up Pine Mtn. roads. Fine views; calm, 5/10 cirrus. View past Caliente Mtn. to mt. abed area. /

I hiked S. on ridge trail, toward Pine Spring (USPO gate where road reached ridge, but no sign or obstacle to 2-wheeled traffic to S, none to 4-wheel to N. Motorcycle trail, but only 100 yds. to S, most to N. /

Walked S. about a mile on, found tracks of large puma, probably same one noted here 1974-1976, about same size adult or. Perhaps better a week old; none on snow. I sat on rock point at head of Beartree Cr. &

watched cliffs below for 2 hours midday. Upon arrival, adult eagle came at me and swooped 100' overhead, but no further raptor action. Saw ravens. Cattle on grasslands of La Panga Ranch below,

to E. This is area of Levi Dawson condor nest, Kelly Trumbull collecting area. /

I walked back N. & down to car. Drove via Carrizo Plains & Butterwater Rd. to El McMillan's. We plan lower Beartree trip tomorrow.

30 January 1979. Tuesday. With El, departed in my old pickup for La Panga Ranch. There talked w. Steve Arnold, in early 20's, & wife Debbie at ranch house. Then drove on ranch road several miles S. along

San Juan Creek. Some fine rough sandstone cliffs to E. of river. No calves or cows; only steers on ranch range. / Ranch was up for sale and possibly would be subdivided. About 20,000 A. now, & price ^{roughly} \$200/A. Many Spermophilus mounds. / We drove

Journal

30 January 1979.

La Panza Ranch, San Luis Obispo Co.

up Beartrap Canyon to a water tank & old cement trough. Large sycamores along creek. Walked up the rocky creek about $\frac{1}{2}$ hr., then a fork. Took S. fork & soon climbed out to N. & viewed area of the crags & cliffs where old condor nest site. ¹⁹⁸³ Cl said that about 1968, he & Greg McMillan saw a young immature condor there. ^(in next canyon S; spring, barely fly. Date?) He had also been here with Fred Sibley, and with S. when he climbed to old condor nest. We ascended to N. fork and a flat, where once Chinese mined gold & where Dawson & True ^{Found puma tracks; probably ♀ and cub, & judged, though poorly defined.} had camped in 1920s. Threat of rain increased, & some drizzle after about 2 hours, about 1030, we turned back. Cl showed me an open ^{meadow} ~~area~~ where there were crows; Cl said crows only in that place, in for decades. We returned to car via cattle trail and ridge to S. of creek. Then drove back to ranch headquarters, talked more w. Steve. Drove back to Cl McMillan's. ^{He mentioned 2 dead condors near Beartrap C. in late 60's, left uncertain about how died.} Stayed there later in day, with about 2" on lawn. As usual, many cattontails and quail around the house. Saw marsh hawk hunting nearby. Blackbirds in trees made much noise in early morning.

31 January 1979. Roads too slick to go up Miller Canyon road to San. I departed & drove via Highway 5 to Berkeley. Little traffic as ridge route road to Los Angeles closed by storm.

1 February 1979. Tuesday.

MUS. Vert. Zool., Berkeley, Calif

Dr Michael Fry, of poultry dept., Davis, phoned then visited me. He had ^{Gymnogyps} bryotyped LA Zoo Calif. condor as ♂, & showed me slide (feather follicle method). Also had bryotyped Andean C. & King Vulture - patterns second-identical. Boy Testosterone / Estrogen levels, got ♂ too for zoo bird, using analysis of excrement. Also said that year around sampling showed hormones ^{testosterone} (which) highest in March. He had also measured T/E ratios in two adults' experiment, furnished by Borremans. In Oct. 1979 at

Tawna

6 February 1979.

MUZ, Berkeley CALIF

corder count, at Beartrap Canyon near upper Tule Canyon in Tule Park, he had seen ^(Gymnogyps) ~~4 juvs.~~ leave carcass in morning, 600 yds. from where some observers camped. He had good color prints of the juvs, taken w. (+ ASA 400 Kodachrome film) 500 mm lens on Nikon 35 mm camera. (Could be used to identify individuals by underwing pattern + shot R primary (± 0 ? on one.)). He collected fresh excrement at carcass (fresh, small part eaten); analysis showed very high levels estrogen, higher than any test in gas birds. Fry hypothesized that DDT has estrogenic effects + high doses might cause a bird to retain immature plumage beyond normal period of years. No empirical data for other multivox yet, however. I argued w. Fry against capture + possibly made some progress.

9 February 1979, Friday. Departed Berkeley about 5700 and drove ^{to San Luis Obispo Co., CALIF.} via ^(251 mi.) Hwy 5 to Cholame + El McMillan ranch. Light ^{warm} fog or smog in San Joaquin Valley; no clouds. Short visit. Left ^{copy of} USFWS draft capture plan, which I received 4 Feb. from OES, John Sprung. / Then to San Mc N. Ranch, where met friends Robt. + Mary Noyes of Palo Alto. W & worked on house.

10 February 1979. W. El Noyes, drove via Hwy. 50 to La Panga Ranch, then 5 mi. S, + about a mile up Beartrap Canyon to water tank. Then walked up canyon. Light cirrus clouds; some haze. We walked up slope to S, then W. on ridge + overlooked dry meadow (solar, brush, in patches) to S. soon saw 2 coyotes under a spreading ^{leafless} oak. They together at dinner, as if playing. Watched them 20 min. Eventually saw 3 together, another 1/4 mi. distant. So at least 4. No apparent response to my yells, 1/2 mile away. Two mouthed each other, puppylike. Few ^{stems} in the meadow. / Left ca. 1015. Went up canyon, taking N. fork of creek (big boulders; heavy brush at sides) until 1 p.m. Then about 1/2 mile N. of largest crog. We saw one golden eagle several times, flying close to cliff near side of the Dawson

Coyote

Journal

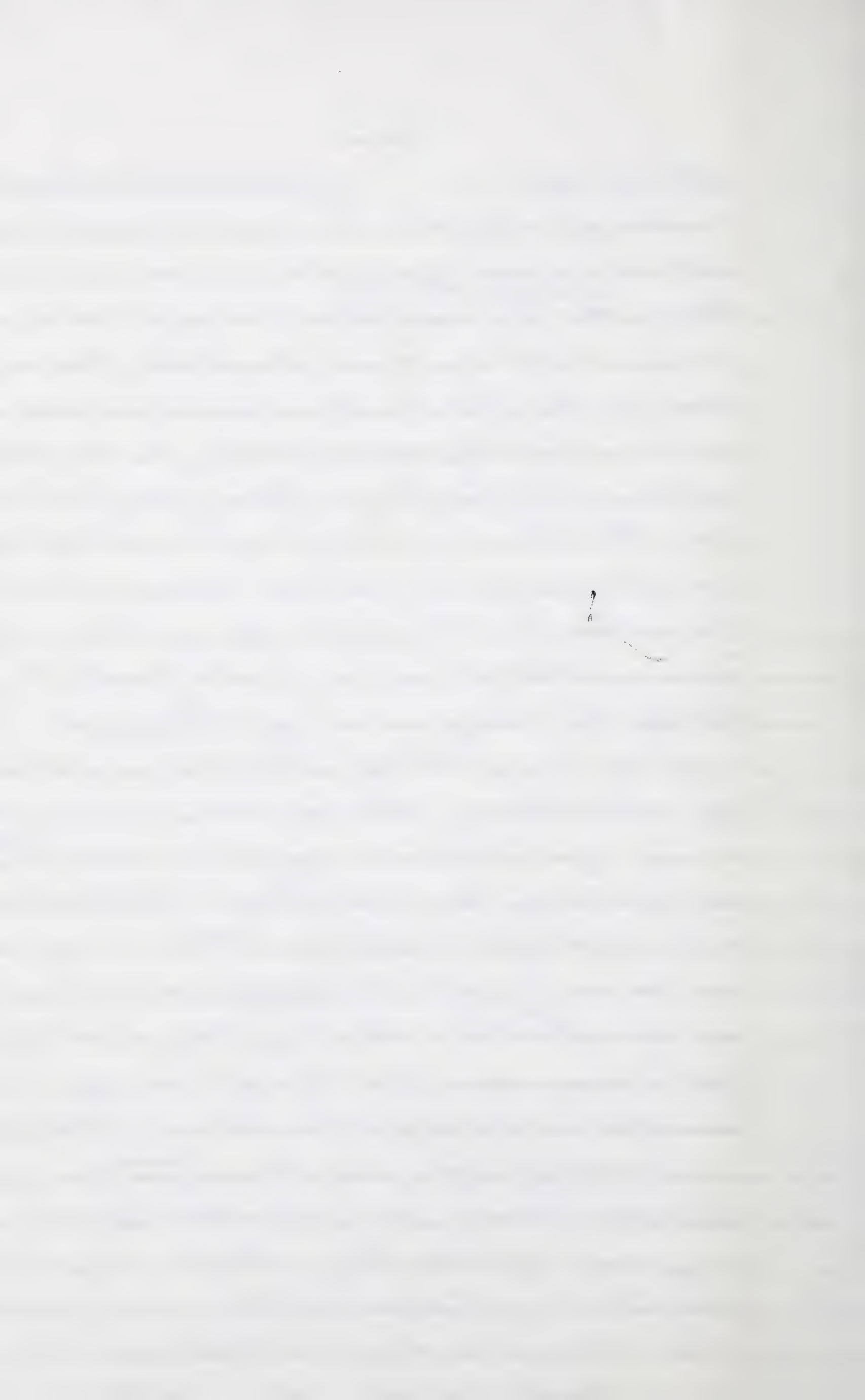
10 February 1979.

La Panza Ranch, San Luis Obispo Co., CA.

Truesdale canyon visit of 1920s. We were unable to find trail to canyon, so backtracked down canyon. Found a good trail going west atop ridge, & assumed ^[actually did not] that it connected w. trail at canyon. Hiked back down canyon. Running nicely, w. occasional pools 4' deep & 10' wide, clear cold water. Reached car 4 pm & drove out. Talked w. Debbie Arnold at ranch house; she much interested in condors. We drove back to San Mc M. ranch. / In evening, Elan & Gladys Mc M. showed O. Pearson's 1952 film of Peruvian altiplano; guests included Helen, Jim, & Steve Sinton, some wives, & Irving Mc M. as well as Jan & May. I narrated & answered questions. Sinton's gave willing permission to work on their ranch lands. / On 9 Feb., noon, I saw golden eagle at dead ground squirrel on paved road in Palo Cristo canyon, near old adobe. Apparently nesting pair there (fide Elan), & site formerly used. Stayed at S. Mc M. ranch.

11 Feb. 1979. Sunday. With Hayes, visited Elan, then drove up Bitterwater Canyon. at Grant Lake, many coats & carverback ducks. Saw about 5 rough-legged hawks (weird wing, white tail w. black tip) ^{tetrahone} on potholes along way to Carrizo Plains. Then via Hwy. 58 to La Panza Ranch. No one home. So went again to Barstow Canyon. At Elan's, this morning, we saw two immature (white tailed) golden eagles over his house, 200' up. Left car at water tank. Walked up canyon bottom 25 min. to first fork. W. of Chinese mining area, took trail up ridge toward canyon. trail ascended, but went to E. side of cliffs & ended. There 1:30. Walked cliffs & saw two adult golden eagles, one heard by scaring ^{near} top of cliffs. Probably canyon trail comes from N., where parts visible. We hiked back down the canyon. many coyote tracks but rare deer tracks. No flowers except manzanitas. Hazy & fairly warm. Back down canyon & drove back to San Mc M. ranch. Jan showed me recent Tehachaly condor article in California, a PBA airline gratis magazine. Full moon. / Stayed w. Larry

eagles



Journal

11 Feb. 1979

Mc Millan Ranch, San Luis Obispo Co.

Hurtz, Cal. Poly student, at Jim Sinton Ranch. He interested in hawks. Known Hi Mtn. route to peregrine nest (showed by USFS wildlife person, ♀), which John Schmitt will watch this spring.

12 Feb. 1979. Warmish & hazy, w. alto-status overcast. With Ray's, hiked circle from my shack to S., W., N.E., & back to shack in about 3 hours. Saw 1 jack rabbit only, 100+ white-crowned sparrows, many quail, 2 song sparrows, but generally few kinds of birds & rare flowers (some on filices). Grass & barley about 4" tall. / Ray's departed for his alt. about 1 p.m. I worked at my shack. TO Hi Mtn. area, San Luis Obispo Co.

12³ Feb. 1979. Drove to Pozo, arriving 0830. Met there Larry Hurtz & Lynette Sherman of Cal Poly. We drove in my Chev pickup to Hi Mtn. look-out. Cold & windy, occasional rain; desimizing. Went out ridge to S. of L.O. & down a trail, recently brushed in parts, occas. plastic tape. Road has partly cleared lately by USFS. Down thru brush on a ridge, then to left in head of Deer P. Cr., then down to Hi ^{Valley} meadow. Grass among oaks on slope, & a high sandstone monolith. Trail to V. thru thin grass, passing just E. of rock, thence W. down a canyon, under oaks, laurels, madrone, in shady canyon. Finally to a meadow of a few oaks, opposite the ^{Dragon's} Head sandstone monolith (top of E. side visible from L.O.). L. said that peregrine nest watchers camped in this meadow. He pointed out site of peregrine nest, near a "Mexican hat" shaped hole. Some years a different site. Condors had nested in 2-3 places at R. side of the much pock-holed cliff. It was the usual Vaquero sandstone. Lopez Lake not visible from our site, but probably from top of Dragon's Head. / We saw no condors, eagles, or peregrines. USFS will put John Schmitt on as watcher about April 1. Condor nest caves large & open, so could easily walk into them.

Journal

13 Feb. 1968 1979. Tues.

Hi Mtn., San Luis Obispo Co., Calif

Elon McMillan notes indicate he saw chick there 30 July 1968 and photographed it. Carrier & Sibley were with him then. They saw one adult. / On 10⁹ July 1969, Carrier & Sibley had also seen a chick there. (On 10 July they visited Beartrap Cny. nest site area.). The Hi Mtn. nest said by El to have been discovered by F. Sibley about Dec. 1966. Lookout Piero Ferrari had never seen a condor, ~~tho there~~ (there 2 yrs.?). What is evidence for fledging of any of the chicks. Perished each year, so probably died. // We hiked back up trail in 1 1/2 hrs. Drove back to Pogo. Larry & Lynn. returned to S.L.O. Chapin. I drove to Santa Margarita, thence north on Hwy. 101 to Berkeley. /

20 - 28 Feb. 1979. I worked on 4 page comment on Draft Recommendation for Inupat. C.C. Contingency Plan. Mailed about 40 copies. Visited Friends of the Earth one day with Mark Palmer. Wrote letters to federal officials urging preparation of an Envir. Imps. Statement on the Contingency Plan. Betty Davis & I are to be on a national condor committee of Sierra Club. To Cholanwe, S.L.O. Co.

2 March 1979. Departed Berkeley 2 p.m. in Chev pickup & drove via Hwy 5 to El McMillan, 250 mi. Saw a white-tailed litter near Hwy. in 2 places near Panache turnoff. / Talk with El. He said of Beartrap: he & Gregory saw a flightless young condor about 1 mile SE of Castle Crags about late Sept. (deer season) in 1956 or 57. Last indication breeding there? Also about 1968, probably 2 condors dead in Pelitar canyon after poisoning operation by Bob Lewis. Some of Arnold family known about it. All covering-up incident. Steve Arnold mentioned it one day. / El also thinks the Santero Canyon area would be good for condors, or feeding them. Much of it on Bert Snedden

Journal

2 March 1979

Nr. Cholame, S. L. Obispo Co.

(of Merced) Ranch. Can observe from road to Mt. Abel. Calving there from late Aug. on. Much other talk. Fine clear night.

3 March 1979. ^{Sat.} Max talks with Chan. They drove over hills to San Millan ranch & my shack. Unloaded. Then talked w. Jan. He is keeping close track of any attempt by county (Earl Kalen, ag. comm.) to pass w. 1000. Jan thinks that legally an E.I.S. might be required for such. Worked in my shed shack & trees. Rain above normal now. Noted no migrant birds or nesting yet.

to Cuyama Valley, Santa Barbara Co.

4 March 1979. Drove over to Clois. Then departed in fog about 10 am. for Carrizo Plains. Soda Lake full; no fog plains. (Dps. of about 50 cows & calves, 9 mi S. of Calif. Valley) Saw 1 fernyishan hawk on pale top near Lewis Ranch. Turned W. on Hwy 58 to La Panga ranch; no one home. To back S. Low cum-stratus clouds. Near Calif. Valley jct, a black redtailed hawk. 1 mi. S. of Calif. V., 200+ ewes & lambs. 1 turkey vulture. At foot of Soda Lake, 31 mi. to 166, saw 300+ sandhill cranes, mostly in air, noisy. 16 1/2 S. of Calif. V., start dirt road, narrow, rough. Stopped at Reyes Sta. store. Talked w. "Alice." She knew something of condors; said in desper. said poisoning on C. Plains; killed dogs. Coyneal type. An in-law of Reyes family. But knew local people. On to Hwy 33 & S. Now square miles of alfalfa, now short. One group 500+ sheep before county line & Ballinger Canyon. About 1 mile beyond Gratal Rd., I visited home of Otto Wogatz & Delia. He in hospital. She tall & thin & liked animals. Has pet quail 7 yrs old. Said here 37 years. Said about 3 years ago, a condor killed (shot) by Hwy.; 8 ft wings spread. She phoned John Taft (of Opai). When he got there, bird gone. (Turkeys?). She said formerly raised turkeys; put dead ones on hill; condors occur. came & ate them. also eagles. She said turkey ranch in

Camp 20.

0. Pottsville Aug 38 pt.

For P. north $4\frac{1}{2}$ to 11.

Branch n. rd. 5 mi S., 1 mi. N. of Camp 11. pt.

Lower line - $6\frac{1}{2}$ mi. S. of Camp 11.

Dist - $16\frac{1}{2}$ S. of Camp 11.

Black River - 15 mi. farther.

Highway $43\frac{1}{2}$ S. of Camp 11.

Journal

4 March 1979.

Cuyana Valley, Santa Barbara Co.

Quatal Cuy. now, & condors may eat carcasses. Much talk about pets. Condors usually came from Santa Barbara Cuyon side. She said Beatrice Keyes interested in condors & had consulted w. Rich Smith. I drove on about 2 mi. to Dusty River Ranch road on W. side, intending to visit John Taft cabin, but stream too high & sand soft, so did not attempt crossing. Then drove up Quatal Canyon, dirt road. about $1\frac{1}{2}$ mi. to Turkey farm, where 1000' white birds. Badlandsy brush, juniper, piñon. Gradual rise. Good Camp near top, about 5700', & some snow on ground. Drove slowly down paved road, looking E. into Santa Barbara Cuy. & Brush mtn. Condors could roost in pines at head, & on mt. abel, & go down canyon to grassland hills in San Emigdio Ranch area & Snedden R. Paterson where bait could be put at Carhead, & lowered down at Jazan Apache Paterson. I camped at Valle Vista, Kern Co. c/g., 4500'. No other campers. Good view across Santa Barbara Cuy. & of grassy hills to N. Fog at about 3000' in San Joaquin V.; in evening, fog rose & covered me, but later dropped down, so clear. Camped among pines & oaks. Saw 2-3 ravens at times.

5 March 1979. Calm; 2/10 cirrus. Fog at 3500'. I descended, road going through grassland hills, by Snedden Ranch. Drove down to New Cuyana & visited Ben Harlow, resource forester of Mt. Pine district. He & an assistant thought Santa Barbara Cuy. road not possible for 2 w.d. snow visible on Cuyana Pl. & other ridges above about 4500'. He knew of me. We talked of condors & other birds & mammals. Tried to enlist cooperation & aid in condor studies in district. He said condors (no.?) had been seen roosting on trees near newly established Hard Luck Camp, near Pyramus Res., so campsite had been moved N. He had some condor pictures on walls

Ben Harbor
766-2263
New Cayana

Journal

6 March 1979

Coyama Valley, Santa Barbara Co.

But perhaps had not seen them. He had had experience with bald eagles on Klamath N.F. Seemed interested & cooperative; talked about 2 hrs. But the
(Dave Alexander)
D.R. will have to give permit for road use to Santa Barbara Potosi area. I drove on 60 mi. to Santa Maria. Cattle on ranches, & some calves. Went to Sta. M. Ranger Sta. (Carlotta St., Donovan as turnoff), & talked w. Lauren Hillman, ♀ from GB, in charge grazing & wild life. Here 6 nov. About 30 yrs. & serious. Swamped w. office work, little time in field so far. He said that Garcia-Morales area still possible for inclusion as wilderness area; under consideration. I tried to educate her about condor status & recent developments. / Departed & drove back to San Mc M. Ranch.
(nr. Shandon).

7 March 1979. Clear calm night. I drove to Hwy. 58, thence to La Panza Ranch. Steve Arnold & wife had not seen any condors lately, & no recent cattle losses. Beartrap Canyon 5 mi. from ranch house. Went 1 mile up canyon to water tank & parked. Doing myopins in sycamores, where old nests. I put 2 dead jackrabbits near top of grassy hill as bait. Departed car about 0930. Hiked 2 hours up canyon near creek. Cashed
often heard Oreortyx calls.
thru brush 1/2 hr. to reach trail to Castle Crag. Walked up trail to top of second crog (conglomerate rocks). Arrived about 1230. Searched cliffs for eagle nest but found none. Fired 6 pistol shots at cliff but flushed no birds there, but 1/4 mile W., around a curve in cliff, a prairie falcon flushed & flew over brush, calling hurr-hurr. Large black areas under wings. Perched on point of cliff. / About 1 p.m., I saw one gr. eagle circling above cliffs, but it did not land or pass close to cliff face. I think no eagle nest in crog area. Departed 1 p.m. & hiked down to creek, thence to car - about 2 1/2 hrs. total. Found no lion tracks, but deer, coyote, fox, & bobcat tracks. I turned over rotten logs & oak branches but saw no salamanders. Did

Journal

7 March 1979.

San Luis Obispo Co., Calif.

see some Sceloporus, including one 2" long. Saw Hydra in stream but no fish. Returned to San McMillan ranch. Talked w. Larry Hurty en route.

8 March 1979. Trip to Hi Mtn area. Drove via Hwy. 58 and

Navajo grade to Pozo. Talked w. Robert Chub, AFCD(?) in charge. Nearly all new people since 1976. Drove up to lookout. Clear; wind 10 kts.

Departed 11 a.m. on trail down to Hi Valley. Trail obvious & adequately cleared. In meadow much miner's lettuce under rocks. Clear stream. Two turkey vultures soared about the monolith (looking for nest site?).

1210, at crest N. of the monolith & started down Huff's Hole side. No footprints of recent use. Lunch on trail bry. 120° from Dragon's Hd cliff, site of condor & peregrine nesting. Took photos. White-throated swifts. / at 1:20, stop under.

across from peregrine site, bry. 005° T. Met 3' Crotalus on trail; sluggish. Saw thrasher's & Oreortyx. Heard calls latter. / No signs condors or falcons. Hiked back up trail, 1 1/2 hrs. to lookout. Hot climb. Returned down road to Pozo, thence to San McMillan ranch.

9 March 1979. Talked w. Mary Mc M. & Ellen Mc M. about condor problems.

Then drove via Hwy. 5 to Berkeley.

19 March 1979.

Berkeley to Shandon, ^{Calif} San Luis Ob. Co.,

Departed 2 p.m. in Chev pickup, alone, and drove via Interstate 5 to Cholame, up Bettenwater road to El McMillan's ranch (he away), then over slippery dirt road to San McMillan Ranch. Arrived about 9 p.m. Recent rain. Camped in my shack. Steve Herman & student Tom Stierhoff arrived later, from Evergreen State College, Olympia, Wash. / On road between El's & Jan's I saw several pocket mice on road and at least one kangaroo rat. Clear night.

20 March 1979. With Steve & Tom, drove west through Camanche Ranch to Hwy. 58, S. to Navajo road into National Forest, then

Koda 1,2

Koda 3,4

Journal

20 March 1979

Calif.
 No. Shandon, San Luis Obispo Co.

to Pozo road, and east to Queen Bee campground, thence Chester Spring and up Pine Mtn. road about 1 mile. Parked, ^{3000'} & hiked up to Pine Ridge, thence S. along ridge to head of Pleatrops Canyon, ^(arr 1240) Hoped to see a condor or golden eagle, & to see if any eagle nest near old condor nest. Droppings of apparent bobcats, coyotes, foxes on trail; no puma tracks, but 2 or 3 possible old scratches. Found 2 real & 2 ^{cartridge} gauge shell casings on trail. Occas. Oortyx call in brush. Scrub jays. / En route, near Shell Creek, saw 2 marsh hawks (♂ & ♀) attack a red-tailed hawk in air over grassy hills. / Overcast with dark-bottomed cumulus clouds, cool, & slight breeze. About 1320 a golden eagle soared above crest above old nest cliffs & apparently went on to S. We heard calls of a prairie falcon near cliffs, but did not see it. A kestrel flew over brush near us. / Good views to Correy's Plains, but some haze. Discovered no nests in the cliff face, using 20x spotting scope. Light hail about 1415. We started back. Saw 2 turkey vultures atop a conglomerate ledge; one seemed about to mount, but did not. One soared off, & the other soon joined it in air; headed SE. Arrived car 1530. Drove down road, to Queen Bee camp, to Pozo Rd, & back way we had come. On Senton's, just after leaving hwy. 50, saw maggie atop fence post. We stopped at old Senton office and visited Larry Hertz, Cal Poly, San Luis Ob. student. He said that a redtail nest and prairie falcon nest in mud cliffs about 1 mile to W. / We drove to Jan's & had dinner w. him and May. Much talk, and condor and ODT discussions. Camped in my shack. Overcast night, cold.

21 March 1979. High fog morning. Talk w. Jan. Gregory

Journal

21 March 1979

Nr. Shandon, San Luis Obispo Co, Calif

McMillan arrived. More talks Steve and Tom and I went to Gregory's house to visit. Condo talks mostly. Then we departed & drove west through Sinton's Ranch to area of reported nests in cliff, N. of a windmill. Approached cliff; saw stick nest $\frac{1}{2}$ way up 60' cliff in a vertical groove. A redtailed hawk flushed, circled silently, and departed. Another in air over cliffs, calling occasionally. At nest, two hawk feces, one w. nesting material; nesting in hawk nest? | Earlier, as we approached cliff, one red-tail in air, dropped an object (mouse?), descended 15', and caught it in air; ¹⁴³⁰ sawtooth? | Steve looked at foot cliff under nest; no food remains. We departed & inspected 2 nearby clay cliffs. Atop one, Tom saw a prairie falcon alight. We also saw a raven, at third cliff, flying. | We drove on west a mile. Examined a "guzzler" for guide to water. Then on to site fallen pine where former eagle nest; walked up draw behind (north) of it. An old nest, possibly eagle, in a digger pine. We saw no eagles. | Descended to road. Drove back east to San Juan Cr. road. Went upstream 3.5 miles to area of fine sand w. much Atriplex on west side road; walked around. Found many Dipodomys burrows in the sandy soil. Many white-crowned sparrows in brush. We returned to Jan's and to my shack for the night. | In morning, going down lower Isille's Canyon, saw one road-runner. It climbed atop a wood fence, ran along it, and flew down. | Barley now about 1 ft. tall. Much yellow-flowered Anemone, near road and near my shack. | Near the hawk cliffs, a long band of Atriplex bushes looked by


Journal

21 March 1979

Nr Shandon, S. Luis Ob. Co., Calif.

barbed wire fence. In these bushes and on fence we saw several shrikes, & in bushes many old nests, probably of shrike.

22 March 1979. High fog. Talk with Jan. Then drove via Hwy 58

and Navajo's grade to Pozo, and on up to Hi Mtn. Lookout (40 mi.). at 10:30 started down trail to Hi Mtn. about ^{1055'} 1025', Tom saw one peregrine falcon atop Hi Mtn. Rock; soon flew to W. 1110, at creek in bottom. Some footprints, fresh, of man & dog. 1125, at pine log rock, 2600'. Slowly down to S. Heard 2 Bubo calling, & Oreortyx. 12:15, opposite peregrine cliff and "bat" hole . No new white wash. Saw 2 red-tailed hawks perched atop point 1/2 mile W. Eventually saw 3 turkey vultures at once, circling above Dragon's Head cliffs. Overcast; threat of rain. I looked at foot Huff's Hole Mtn.; flat where Schmitt camped last year; no signs recent use. Steve & Tom watched cliffs until 2 p.m.; no falcons seen. A yellow "rescue" plane passed over us and Huff's Hole a few times; D-shaped tail, like an SN5. Started back up. 1410, 2 Cathartes perched together atop cliffs 1/4 mile S. of old peregrine site. ^{Mtn.} Pinal calls. Red flowers by trail. Occas. deer tracks. Hiked N. up hill; at car 1540. Occas. sunshine. Drove down. No sign of warming or clearing along road or trails. Back thru Shell Cr. canyon. Near Sinton's crossing of San Juan Cr., we saw a prairie falcon perched atop cottonwood. It flew off in a wide circle around newly ploughed ground. / About 200900 today, a yellow plane sprayed alfalfa near airstrip on Sinton's. Saw 1 hill deer on ploughed ground. / Returned to Jan's ranch & stayed at my shack. Overcast & cool.

To Santa Barbara, Calif.

23 March 1979. Departed 0600 and drove via Santa Maria and San

Marcos Pass to Santa Barbara Museum Natural History, for symposium

Journal

³
24 March 1979.

Santa Barbara, Calif.

on vultures. Largely paid for by Western Foundation (Ed Harrison), & run by them. To be 3 days of papers. Some by Mundy, ^(Rhodesia) Pennycook (^{Bristol Univ,} ~~England Scotland~~), Houston, Terrace (France - films), McIsaac (Andean condor), others. Erickson of Patuxent gave only paper by USFWS man, on captive Andean condor. Eno & Smart of PWS Task Force present. Good turnout of local people, students. Stayed w. Wally Abbott & family, next to museum.

24 Mar. 1979. More papers. Ed Harrison showed Pemberton color film & gave comments; included Ed & me w. young condor out of nest. Talked w. Eno of USFWS; he seemed to think no public input required to capture plan for C. Condor. Stayed w. Wally Abbott & family; dinner included Greg & Linda McMillan.

25 Mar. 1979. More papers & movies. Talked w. Erickson, who was not in favor of molesting nests, not in favor of capturing all condors. He & Smart said radio-telem. would require aircraft monitoring. Smart thought "Draft Recommendations" still under consideration, not in final copy or signed. Talked w. Plumbett, who is unhappy about lack of scientific use of zoo bird. Nothing controversial discussed (except w. Eno). Met Keith Nelson, who now favors no captures, & will publish article in Imprint, local ^{Santa Monica} and. Av. journal. / Mike McLay, DVM, now represents Wildlife Federation in Calif.; seems to favor no captures. / Stayed w. Wally. Brief meeting w. Fred Esler & Ralt. Carter.

26 March 1979. Many went on field trips to Tejon R. (saw no condors). I visited Jeff Hudson, editor of "Condor Coll," local Sierra Club journal. / also visited David C Davis, doing experiment on annual cycle of weight in Spermophilus beecheyi under various daylength regimes; no apparent interest in condors. Seem to think no additional restrictions on use 1000 probable, especially because of one paper by Walter Howard that shows better cattle gains when squirrels reduced (but gain at season when squirrels eat little, winter). I

Journal

26 March 1979.

Santa Barbara, CA.

Talked w. Kiff & participants at Pepper Tree. Offered to take some in field. But rainy weather, & group arranging new car; George & office visitors going to travel up coast, visit Yosemite, etc. / I drove to Shandon in rain at night.

27 March 1979. Slept late. Talked w. Jan & his visitors from Paso Robles.

Phone from Mark Palmer; said phone talk w. Wilbur, who thought USFWS recommendations had been approved by ^{Director} Greenwalt on 1 March, and that then had to be incorporated in Recovery Plan, & that before capture, plan would be printed (for comment?) in Federal Register. Mark also said there was plan for timber sale on Tejon Ranch, & subdivisions development. /

Bryan Walton reported one adult condor on cliffs SW of Rocky Butte, 2 x a week apart, seen from plane recently. Wilbur says condor activity indicates 2 possible nests (Big Pine (birds seen but hole not discovered yet) and ?).

28-30 March

Worked on article for Shandon, journal of Santa Monica Bay Audubon Soc.

31 March

Saturday. To San Luis Obispo to copy article. Then to Santa El Morro, 5 mi. toward Morro Bay, for Santa Monica Bay Audubon Soc. meeting.

28 March 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

29 March 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

30 March 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

31 March 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

1 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

2 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

3 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

4 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

5 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

6 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

7 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

8 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

9 April 1979. Drove N on State Hwy 1 to San Luis Obispo, about Rocky Butte, where Wilbur saw condor. Then drove to San Luis Obispo.

Journal

10 April 1979.

Santa Barbara, Calif.

In Santa Barbara. Gave talk to Santa Barbara High School
club. Gave a talk to the club. I appeared at the Santa Barbara High School
various clubs. I appeared at the Santa Barbara High School
to work. I appeared at the Santa Barbara High School
and they. I appeared at the Santa Barbara High School.

11 April 1934. Drove W. to Santa Maria, talked w. office staff. The
Cedars on Santa Maria road were in 9 hours! on dirt road
up from Chatter Spring to Pine Ridge & W. to Moya Road. Continued on to
San Luis Obispo. Home above ridge to S. to Santa Maria at
Mt. Pitt. Home, back down, in a little while, then down to San Luis
area & W. to San Luis. Spent in home with my mountain goat for
cows, in good visibility. (Teacher of Cal Poly had reported seeing
an adult house wren in San Luis at 1370 on 3 March.) Some more very
windy day, back to Home. / San Me M. told me that 5 cattle

reported dead in Shale Hells from larkspur poisoning. He said last year many killed by bloot, from feeding on lush grass after dry period. Most cattlemen now have max. no. cattle because good forage & high prices; many calves. | Letter from Bill Francis, Monterey, reports that "Red" Phillips reported condors at Butcher's Camp, up Palo Colorado Canyon, recently. |

24 April 1979. Went to Sacramento, leaving 0500, to state senate com-
mittee meeting; mt. lion bill 68835 presented at 9 p.m., but no vote
taken & our opposition not presented. Mrs. Owens, Wynberly Coen, &
usual group present. Dinner w. Sue & Larry Sutton. Back to Berkeley.

7 May 1979. Monday. Rain in Berkeley. Departed 3 p.m. & drove via
highway 5 to Chalona, San Luis Obispo Co., & Elmer McMillan Ranch. Arrived 9 p.m.
A wet winter, late ^{spring}. Elmer said many weir this year. Berkeley

Journal

7 May 1979.

E. San Luis Obispo Co., CA.

crops maximal; now 4-5' tall, green. Ch recently back from Audubon lecture tour in east. Many young cottontails now. Talked about condors & other subjects w. Ch & Greg. Stayed for night.

8 May 1979. More talk w. Eben. Half overcast. Departed & drove over

hill to Jan McMillan ranch. Talked w. Jan about condors, 1000 poisoning, etc. Jan ^{says} ~~says~~ quail food poor, though grass & grain crops maximal. Belknap moved his bees out - food for them scarce. Orioles nesting in trees at ^{Jan's} house. Bluebirds fledglings seen. No young quail seen yet. Nest in gooseberry had 2 or 3 hatchlings + 2 eggs, one of sawbird. Jan said some redtailed hawks nests this year on ranch, though none last year. Most grass he had ever had, & probably best barley production. I sold grain truck across from my shop; one ^{bird} ~~house~~ shew, but found no snakes or mice; about 10' diam., 5' deep. Occasional sprinkle or hail during day. Min. temps. this winter about 24°F. Max so far 85°F.

9 May 1979. Departed Jan's 0700. Drove to Queen Bee campsite, & up

Pine Ridge Rd. Parked 0830. Walked 1 hr. S. on ridge to head Beatty's Canyon & watched for condors & eagles. 1/8 cloudy, mod. breeze. Mt. Quail calls; saw 1 pair. also saw, bluebird, titmouse, scrub jay in blue-oak grassland patch. ~~Least~~ Heard Lophortyx calls, "cow" calls, at edge oak-grassland. 2 p.m., 3/10 cumulus, calm. Searched for salamanders under oaks 1/2 hr.; found none. Saw adult Phrynosoma in trail in chaparral. Tracks of deer, fox (no print). Ravens. But saw no Falconiforms. 1605, left top & walked N. Reached car 1710. Drove down to Hwy 58 near La Panga Ranch. No one home, but two Turkey vultures flew low over canyon west of barn. Returned to Jan's. This was to have been day of condor count in Santa Barbara Co. (Bill Francis of Monterey watched at Belcher's traps near Big Sur; saw none. Ch McMillan

Journal

9 May 1979

San Luis Obispo Co., Calif.

was at radio near Rocky Butte, NW SLO Co. - saw none & heard no reports. Later heard that Santa Barbara people out on 8 May; rained. Also Bryan Walton of Santa Cruz was up & down Santa Lucia in plane but saw no condors. (Blank!)

10 May 1979. Thursday. Clear cool night. Many baby cottontail running around.

Carl Caught pregnant ♀ Neotoma. Breakfast with Jan. Departed 0900. Clear, calm. Billie Canyon grass, partly green on N slopes, dry S. Saw rockwren near corner. I walked N. in canyon near Santa's grapes, looking for nests in mud cliffs. 3 old quail nests w. several old shrike nests; one nest had half grown young. Kingbirds (lateral tail marks) on grape vines. Saw grosbeak, 10⁺ dark sparrows. In cliffs 1/2 mile N., 2 prominent stick nests - ravens? Some other holes w. whitewash. Many lizards out. 11 a.m., clear, warm. In air, one redtailed hawk dove at another. Drove W. to Hwy. 58. Y.-b. magpies. Visited Steve Finton near house. Drove back E. along Shell Creek. Opposite (N. of) windmill, 3 cars parked by the fenced atriplex strip. These included about 5 or 12; leader Brian Walton of Santa Cruz. One man had descended to prairie falcon nest in middle of R. cliff & banded the 2 young (about 2 wks. old, Walton said. Later I heard that they put three captive-raised young in nest.) In car, Walton had 2 captive raised falcon chicks, to be released at other nest later. A girl from Cal Poly to watch nest on occasion. This nest manipulation done in Pinnacles Wildlife Area w/o knowledge or permission of Fintons. Jan telephoned game warden capt. Thomas about it. I searched grain tanks for shrews; could not find.

10 May. Talked w Jan, Elmer. Departed Eli's ranch 1000. Saw adult golden eagle about 2 mi to N., flying low (near fledging time?). No baby quail seen yet. Drove via Hwy 5 to Berkeley in Chew pickup. Took live Neotoma - about a week later it gave birth to 5 young.

12

21 May 1979. W. Susanna, drove to Hastings Reservation.

18 May 1979. Members Monterey Audubon Society arrived. Pres. Bill Francis.

Journal

13

18 May 1979

Carmel Valley, Calif.

John Davis took us on bird walk on road. I talked w. group later about condors. They voted \$300 to my condor investigations.

14

19 May 1979. Drove back to Berkeley.

21 May 1979. Gave talk about condors + objection to capture program for Cooper Orn. Soc. at 8 p.m. to San Luis Obispo Co., Calif.

23 May Wed. Departed Berkeley 3:30 p.m. Drove via Hwy 5 to El McMillan's + stayed night.

24 May 1979. Talked w. Gregory + Jan. Near El's house, 2 hastulae chased 2 hans owls vigorously, as if one had taken something. Many blackbirds + kingbirds in trees. Gladys Mc M. said 3 grouse valley quail seen so far; one bunch 25-30 young. Hot day. / V-g swallows nesting in prairie falcon cliff. Jan said hans nest in ditch NW of my shack. / Drove to Hwy 58, via Navajo Rd. to Queen Bee turnoff + on to La Panga Ranch, where talked w. Steve + Debbie. No condor seen. Steve pays little attention to birds. Steers reduced now to about 250 head. Returned to Jan's. Some barley still green in fields. Chew away still.

25 May 1979. Friday. Departed 0645. Good sunlight in falcon nest; I saw 3 young, half blackish feathers. / Drove S. to Carrizo Plains. Before California Valley, a group 500± sheep. a few few mi. S., one burrowing owl.

Few cattle. Another bunch sheep at far S. end plains. Saw one prairie falcon near S W shed about 20 mi on road N. of Hwy 166. / To New Cuyana + talked w. Ben Harbour, USFS. Said condor report about 3 weeks ago of 5 sightings in 4 days by men looking for falcon nests; Olive + Goodie Canyon, S. of Cuyana. He said a helicopter applied poisoned grain in Cuyana Valley about 2 weeks ago. / I set out to drive to Reyes Ranch. Got stuck in loose sand. Eventually out by putting on tire chains + bulding stick road in sand. Tired + sweaty, so drove up Cerro

Journal

25 May 1979

Cuyama Valley, Calif.

Northeast road about 10 mi. to Valle Vista & camped in piñon & live oak. Overlooked bare grassy hills w. some cattle to N.
Mt. Abel area.

26 May 1979. Hazy, with light breeze. Watched for condors to 0745. Heard Oreortyx & Lophortyx calls. Then up road to S. From Cowhead Patrons gaze, good view west Brush Mtn. & Mt. Abel. (at least one condor per picture taken at each within recent years). B. Grassy knoll to W. of Valle Vista seems good baiting site; conspicuous to birds, accessible to take car over rim. Took side road E. to Marian Camp, 6400', on Brush Mtn. ridge. Big yellow pines, piñons. Walked N. along crest and down, to 6700' ±. Good view of San Emigdio Range to E. Many suitable condor roosting trees. Small snow patches on N. side Mt. Abel & Sawmill. / I saw a hunted ~~sharp~~ ^{sharpshinned} hawk through pine trees. A few ravens, stellar jays, flickers; Oreortyx calls. / Back at Marian C/g 1140. Breeze w fair breeze. / 1 p.m., hiked a mile toward San Emigdio Mtn.; 4-w d. road goes there (also to N.). Departed 2 p.m. & drove via broad pavement to top of Mt. Abel. Junco & Purple Finch there. Big yellow pines. Few people; 2-3 cars only. Heard Oreortyx there. Good long views of mts. / Returned down road & watched Brush Mtn. Crest from 3:30-4:30; no condors, no red tail. Back to Marian C/g for a cool water (but neighbor motorcycle & radio noisy). Walked 1/2 hr S. & back in evening. Heard poor will, no owls.

27 May 1979. Sunday. Cool, calm in pines. Descended road W. to main road. (From near 20 mi. post) Scanned N. side Mt. Abel for roosting birds; saw none, but frequent suitable dead trees. Drove slowly N., 9 a.m. Mi. 19, flushed an imm. golden eagle from beside road; much white base tail. Cowhead Patrons, baiting site possibility. Fairly clear day, better than most. Occas. stops to search for condors, eagles. Only ravens seen. Went down & W. to Hwy. 33 & about 2 mi S. to Foothill

Ben H. suggests, for info: -

Jack Porch

San Emig des Ranch

Mammoth Maricopa Hwy, Metlr. = ?

858-2098

Bakersfield

Journal

27 May 1979.

Cuyama Valley, Calif.

Rd., which runs W. to S. of Cuyama town. Irrigated fields alfalfa, & prep. for other crops. Some antelope fields. About 2 mi W. on Foothill, a feedlot with a few hundred cattle. Opposite Temesian Cyn., gr. of 200± ewes - only sheep seen. Some grs. cattle in hills to S. Included Garde & Olive Canyon areas, where some cliffs. Good view all ridgetops, west part McPherson Pk. Only heavily bluffed area near Montgomery Paterson (Branch Canyon). Various ranch roads to S. of Foothill. I continued W.; road turned N. to hwy 166 at Bell Rd. I drove E. to New Cuyama & took road on W. side to S. to oil plant & Branch Canyon. Took W. road (Foothill again) to Aliso Park, a flat near clear 3' stream, where much shade of oaks, & dozens of camping vehicles. Trail S. to Sierra Madre ridge. / Back to Branch Cyn. area, where a phosphate mine. Apparently trailhead for Lion Cyn. area & Desquino; used horse trailers. / Back to ^{Cuyama} ~~Cuyama~~ for gas, & Foothill Rd. to survey for raptors again. Windy & hazy now, about 2 p.m. Saw a golden eagle flying low over the cultivated fields; adult, but at times appeared to have yellow - & white triangles under wings, condor-like. Also one turkey vulture; Ben Harbour thinks few here. / I drove then to Reyes Sta. & took road to Soda Lake. About 12 mi. in, saw band 100± sheep; no more. Occas. grs. cattle. Some green ^{barley} ~~seed~~ or wheat, 1½' tall, but mostly very dry. / Saw one turkey vulture a few mi. S. of California Valley. On hwy 58, & off at ^{Shell} ~~Salt Creek~~ area. In Pifolion nest, I saw 3 Mentleria active; possibly fourth inactive, lying on floor. Back to - Saw McMillan Ranch.

28 May 1979. Monday. Official Memorial Day. Overcast & strong, but later broke up to thin cirrus. Talked w. Sam. No news of

Journal

28 May 1979.

E. San Luis Obispo Co., Calif.

1080 operations in SLO County yet. Also talked w. Char Mc M. He had been in San Carpofors Canyon area of Hearst Ranch for about 3 days & had seen or heard of no cordons in area; returning there today. He said he had caught a porcupine parked in Palo Prieta canyon at night near the eagle nest & saw another man up the eagle tree; a second porcupine parked near red tailed hawk nest. This would be a favorite for raptor nestling snatching.

Field notes - 1978

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